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FROM . . .
FRANKLIN
TO NANSEN



FROM  
FRANKLIN
TO NANSEN
TALES OF ARCTIC
ADVENTURE 

RETOLD BY 
G. FIRTH SCOTT
AUTHOR OF "THE LAST
LEMURIAN," "AT FRIENDLY
POINT," "THE ROMANCE OF
AUSTRALIAN EXPLORING"

WITH NUMEROUS ILLUSTRATIONS

NEW EDITION

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Preface

WHILE stories of the Arctic explorers and their efforts to reach the North Pole have been told again and again, the constant renewal of expeditions adds every year fresh incidents to the record, until it may almost be said that the fascination of the frozen North is as inexhaustible as the list of Polar heroes is illimitable. Nor is the interest confined solely to the achievement of modern explorers. However great the results of their exertions may be, the fact that, in spite of all the advantages conferred by recent scientific discovery and modern appliances, the explorers of to-day have failed to penetrate the uttermost secret of the world of ice, renders more impressively heroic the struggles of the earlier travellers whose equipment, viewed in comparison with that of modern man, was apparently so inadequate and often inappropriate.

No series of Polar adventure stories would be complete without a prominent place being given to the earlier explorers and especially to that British hero, Franklin, whose name is so inseparably associated with the history of Arctic exploration. The account of his daring voyages, and of his

tragic end at the moment of victory, has already been given in many a form; but the tale is one which will stand re-telling for generations yet to come. In the present instance it has been of necessity briefly written, but in such a manner as will, it is hoped, without loss of interest, render clear the comparison of the conditions under which he and his brave companions worked and fought to their death, with those which existed for such later expeditions as Nansen's and Peary's.

Accounts of other journeys, which it is believed have not previously been brought together in a single volume, are put before the reader, in order that the acquaintance with Arctic heroes and their doings may be made as extended, as varied, and as entertaining as possible. The source of the information (as is frequently mentioned in the text) is the personal narrative of the explorer concerned, where available; and if the interest aroused in any of them requires more to satisfy it than the exigencies of space renders possible in this volume, the attention which will thereby be drawn to the more comprehensive records will stand as a slight acknowledgment of the indebtedness of the writer of these re-told stories to the authors of the original narratives.

G. FIRTH SCOTT.

London, 1899.

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CHAPTER I

The Polar Region

The Mystery of the North Pole—The First Explorer—"The Great Dark Wall at the End of the World"—"Frost-Smoke"—The Lights and Sounds of the North—The Aurora Borealis—Mock Moons—The Early Adventurers: Willoughby, Frobisher, Davis, Hudson, Baffin, Ross and Parry—The North-West Passage.

IN all the range of romantic adventure to be found in the history of man, there is, perhaps, none which appeals so strongly to the imagination as the search for the North Pole. In all the tales of daring courage and patient, persistent bravery, two qualities which stand foremost in the admiration of every English-speaking boy, the tales of the fearless explorers who have faced the terrors and the mystery of the frozen North are without a rival.

Just as it was the record of his struggles to penetrate into the unknown region of the ice-bound North-West Passage which made the name of Sir John Franklin famous fifty years ago, so is it to-day that the names of Nansen, Peary, and Andrée are household words by reason of the hardihood and indomitable courage shown in their efforts to reach the great unknown Pole. Who is there

who has not lingered over the adventures of the *Fram*, that sturdy Norseman's vessel which combined in herself all the best qualities of previous Arctic ships, and comported herself, whether in the ice or out of it, with a dignity that told of her proud descent and prouder destiny? Who has not marvelled at the sublime audacity of the gallant little band of three who challenged undying fame by seeking the Pole in a balloon, abandoning all the old-fashioned notions about ice-ships and dog-sledges, and trusting themselves and their enterprise to the four winds of heaven and the latest scientific scheme? Who has not been thrilled with the daring shown by Nansen and his trusty lieutenant when, leaving ship and comrades, with their lives literally in their hands, they made their historic dash and touched the "Farthest North"?

Full of pluck and daring are all the records of Polar exploration, and, in addition to that attraction, there is something else about the subject which fascinates and holds the imagination. There is a mystery about the cold, white, silent region, the mystery of an as yet

unsolved problem, the mystery of being one of the few spots on the world's surface where the foot of adventurous man has never trodden. Everywhere else man has gone; everywhere else men of our own race have subdued Nature and wrested her close-kept secrets from her; everywhere else save the Poles, and there not even the grandeur of modern inventive genius has enabled man to become the master. We may be nearer to it now than ever before; we may have made many places familiar which fifty years ago were unknown, and we may, in recent years, have disproved the theories of many an ancient explorer; but the Pole still eludes us as it eluded those who were searchers for it a thousand years ago.

It is no modern idea, this search for the North Pole. King Alfred the Great is credited with having sent expeditions towards it, and long before his day men had sailed as far as they could to the North, far enough for them to return with marvellous tales of wonder and mystery. The earliest of whom there is any record is an ancient Greek mariner, Pytheas, who sailed North until he came to an island

which he named the Land of Thule. This may have been the Shetlands; it may have been Iceland; but, whatever it was, this ancient mariner was by no means pleased with it, in spite of the fact that the sun never set all the time he was there. This prolonged daylight caused him considerable uneasiness, and he hastened away from it farther to the North, and the farther he went the more curious he found the region to be. The sun, which at first refused to set, now refused to rise, and he found himself in perpetual darkness instead of perpetual day. More than that, he tells how he came to a great dark wall rising up out of the sea, and beyond which he could discern nothing, while at the same time something seized and held his ship motionless on the water, so that the winds could not move it and the anchor would not sink. He was quite convinced in his own mind where he had come; the wall in front of him was the parapet which ran round the edge of the world to prevent people from falling over, and, like a wise man, he hastened home and told his friends that he had penetrated to the limits of the earth.

What the Arctic regions were then, they are to-day; but we, with a greater knowledge, are able to understand what was incomprehensible to the ancient Greek navigator. At the North Pole itself it is known the sun rises and sets only once in twelve months. From March 21 to September 23 daylight continues; from September 23 to March 21 the sun is never visible. The heat at midsummer is probably never above freezing point; at mid-winter the cold is so intense that one's eyes would freeze in their sockets if exposed to it.

At the limit of the ice two phenomena are met with which explain the fanciful legend of Pytheas. As summer gives place to the cold of autumn, and as winter gives way to the mild temperature of spring, there comes down upon the water a dense mass of fog, to which the name "frost-smoke" is given. It would appear a veritable wall to one accustomed to the clear atmosphere of the Mediterranean, and as it rolled along the surface of the ocean a thin sheet of ice might give the meaning to the "something" which held the ship stationary. Modern explorers have known the sea to freeze

an inch thick in a single night, and ice an inch thick would be probably enough to check any progress of such a vessel as Pytheas would have commanded.

Later navigators, curious to learn whether his story were true or not, followed his course. Some of them went on until they were caught in the rigours of the Arctic winter, and perished in the crashing ice-floes. Occasionally some came home again after having reached far enough to see the great icebergs, floating with all their stately majesty in the blue waters and towering as high as mountains, their summits a mass of glittering pinnacles and their sides scored and grooved with cavities and caverns. Some of them saw the animals which live in that cold, barren region: the great white bear, with its coat of thick shaggy fur, its long ungainly figure and heavy swaying neck; the walrus, with its gleaming tusks hanging down from its upper jaws; the seals, with their great round eyes staring at the unknown intruders; the penguins, with their short stumps of wings and their uncouth cries; and, above all, the huge whales spouting and floundering in the

sea, coming to the surface with a snort which sent the spray flying high in the air, and disappearing again with a splash that was like a crashing billow. Little wonder that those who returned from seeing such sights and hearing such strange sounds should tell wonderful stories about the weird creatures who inhabited the place.

The sounds must have been as terrifying and mystifying as the sights, for in the clear, intense atmosphere of the winter months, noise travels over almost incredible distances. When Parry was on Melville's Island he records having heard the voices of men who were talking not less than a mile away. In the depth of winter, when the great cold has its icy grip on everything, the silence is unbroken along the shores of the Polar Sea; but when the frost sets in, and again when the winter gives way to spring, there is abundance of noise. As the frost comes down along the coast, rocks are split asunder with a noise of big guns, and the sound goes booming away across the frozen tracts, startling the slouching bear in his lonely haunts, and causing him to give vent to his hoarse, barking

roar in answer. The ice, just forming into sheets, creaks and cracks as the rising or falling tide strains it along the shore; fragments falling loose upon it skid across the surface with the ringing sound which travels so far. In the spring the melting ice-floes groan as they break asunder; with a mighty crash the unbalanced bergs fall over, churning the water into foam with their plunge, and bears and foxes and all the other Arctic animals call and bark to one another as they awaken from their winter sleep. Just as these incidents occur to-day, so did they occur a thousand years ago; and if to modern ears they sound weird and awe-inspiring, what must they have been to the men who succeeded Pytheas?

Nor does this exhaust the marvel of this bleak and fascinating region. In the long winter nights the aurora borealis glares and blazes in the sky, "roaring and flashing about a ship enough to frighten a fellow," as an old quartermaster, who was with Sir F. L. McClintock in his search for Sir John Franklin, used to tell the midshipmen. In the prolonged sunset and sunrise the sky is ablaze with

colour, and when the sun has gone the rarefied atmosphere produces many curious astronomical figures. As explorers penetrated farther into the great ice-bound region they encountered fresh peculiarities. The moon, which shone continuously during the three weeks of its course, frequently appeared surrounded by belts and bands of light, in which mock moons were visible. Long after the sun had disappeared a mock sun would shine in the sky, and in the twilight when shadows were no longer cast, men and dogs were liable to walk over cliffs and fall down crevices in the ice through being unable to distinguish them. Penetrating farther into the ice world, they learned that throughout the winter the ice heaved and crashed upon itself, making an incessant uproar as it groaned and creaked. The experience of Nansen and the *Fram* emphasized this, but in the earlier days of Polar research silence was presumed to reign in the vicinity of the Arctic basin.

In those early days the expeditions usually kept close to the northern coasts of either Europe, Asia, or America. Sir Hugh Willoughby,

who sailed from England in 1553, confined himself to seeking the north-east passage from Behring Sea to Greenland along the north coast of Canada. In 1576 Frobisher explored part of the region, the work being continued by Davis, who in 1585-8 discovered and explored the strait which still bears his name, to the west of Greenland. In 1610 Hudson, an intrepid trader and explorer, sailed into Hudson's Bay, and five years later Baffin sailed into and through Baffin's Bay. The result of these two discoveries was to open up a very valuable fur trade, and for the next two hundred years, fur traders and whalers were practically the only men who went into the frozen North. In 1818 the British Navy again entered the field for the purpose of mapping out the northern coasts of America. Captains Ross and Parry were sent out in two vessels, with the result that knowledge of the locality was extended by the discovery of Lancaster Sound, Prince Regent Inlet, Barrow Strait, and Melville Island. The location of these islands and straits aroused still keener curiosity as to whether there was or was not

a passage for ships leading from the Pacific to the Atlantic Oceans along the north coast of America. The search for the North-West Passage was the dream of every Arctic explorer at this period. It fell to the lot of one man to prove the existence of the passage, at a price, however, of his own life, and the lives of all his companions, as well as the loss of his two ships. This was Sir John Franklin, whose Polar exploits form the subject of the succeeding chapter.

CHAPTER II

Sir John Franklin

Young Franklin—His Dreams of Adventure—He Becomes a Sailor—His First Arctic Expedition—Fails to get through Behring Straits—Explores Baffin's Bay—The 1845 Expedition—The *Erebus* and *Terror*—The "Good-Bye" at Greenland—Wellington Channel—They Select Winter Quarters—Discovery of the North-West Passage—Death of Franklin—Prisoned in the Ice—The Crew Abandon the Ships—Defeat and Death.

SIR JOHN FRANKLIN was born at Spilsby, in Lincolnshire, on April 16, 1786, and was one of a family of ten. It is said that his father originally intended him for the clergy, but the boy had too restless and roving a nature to look with contentment upon a quiet, uneventful life. Nelson was the idol of his heart; and although a hundred years ago boys were not quite so well provided with books and stories of their heroes as they are to-day, young Franklin managed to acquire enough knowledge of the doings of Nelson and the other great British Admirals to make his heart thrill with enthusiasm for them, and for the element upon which their greatness had been achieved.

His home was not so many miles away from the coast but that he had a personal acquaintance from early boyhood of the scent of salt water and the sight of the open sea. That,

combined with what he learned of Nelson, and the romantic yarns spun to him by any old sailor he chanced upon, exerted over him the spell which, in all ages, has so powerfully influenced British boys. The long stretch of moving water, which rolled between him and the skyline, was the home of all that was wonderful and glorious; the ships which sailed over it were, to his enthusiastic mind, palaces of delight, journeying into realms of mystery, adventure, and beauty. Over that sea lay the lands where the coco-palms grew, where Indians hunted and fought, and where mighty beasts of strange and fantastic shapes roamed through the palm groves. Over that sea, also, lay the realms of ice and snow, of which more marvelous tales were told than of the golden islands of the Southern Seas. And over that sea a great yearning came upon him to sail. The life on shore, in peaceful, steady-going Lincolnshire, was too dreary and hopeless for him; nowhere could he be happy save on that boundless ocean, with room to breathe, and surrounded by all the glamour of romance.

Fortunately for the glory of British naval

history, the elder Franklin did not shut his eyes to the attractions the sea had for his son, but, as a wise parent, he regarded the wish to follow the sea as merely a boyish whim. It would be better to let the boy have a taste of the realities of the life at once, and so cure the fancy which threatened to interfere with the paternal desires as regards the clergy. Every one knew how attractive a sailor's life looked from the shore, and most people knew how much more attractive life on shore looked from the sea. If John wanted to see what a sailor's life was like, he should have his opportunity, and the father, in arranging for his son to sail in a trading vessel to Lisbon and back, probably felt satisfied that the rough fare and hard work he would experience would effectually cure him of any desire for more. But the future Arctic hero was made of sterner stuff than to be turned away from his ambition by such trivial circumstances. He returned from the Lisbon trip more enthusiastic than ever for a sailor's life. His father gave way before so much determination, and young Franklin shortly afterwards entered the Navy. His first ship was H.M.S.

Polyphemus, and he was present on board at the battle of Copenhagen, under the supreme command of his idol Nelson.

His first Arctic experience did not come until 1818, when he had reached the rank of lieutenant and was second in command of an expedition sent out to find a way through Behring's Straits. Two vessels formed the expedition—the *Dorothea*, 370 tons, under Captain Buchan, and the *Trent*, 250 tons, under Lieutenant Franklin, the latter carrying a crew of ten officers and twenty-eight men. Their instructions were to sail due North from a point between Greenland and Spitzbergen, making their way, if possible, through Behring's Straits. The ships, which would to-day only rank as small coasting craft, were soon imprisoned in the ice and so severely crushed that, as soon as the winter was passed and escape possible, they were turned towards home. The practical results of the expedition were valueless, and only one circumstance in connection with it saved it from being a failure. That was the introduction of Franklin to that sphere of work which, during the remainder of his life, he was fated so brilliantly to adorn.

The following year, 1819, saw him again facing the North, this time in company with Captain Parry, and with a well-arranged plan of operations. Parry was to remain in the ships and explore at sea, while Franklin was to push along the shores of Baffin's Bay, making as complete a survey as possible. For three years the work was continued until, by 1822, the party had travelled over 5,550 miles of previously unexplored country along the North American coast. Returning to England, Franklin enjoyed a well-earned rest until, in 1825, he was placed in charge of an expedition to complete the surveys of the coast along which the North-West Passage was supposed to run. With the experience of his former expedition, he was able to work more rapidly on this occasion, and by 1827 he was back again in England with his task completed. Not alone had all the surveys been carried out, but he had demonstrated his qualities as a leader of Polar expeditions by returning with the loss of only two men.

In spite of this, however, nearly twenty years were to elapse before he was again entrusted

with a command in the Arctic regions. He was sent, meanwhile, to be governor of the colony of Tasmania, or as it was then called, Van Diemen's Land, a large island to the south of Australia. Here in the metropolis, Hobart, a statue of Franklin stands in Franklin Square, and it is curious to think that the man whose work in the Northern Hemisphere is an immortal monument of his name in the region of the North Pole should have his memory perpetuated by a statue nearer the South Pole than any in the Southern Hemisphere. Verily, a world-wide reputation.

In 1845 the expedition started which, more than anything else, tended to make Franklin the popular hero he has become. The *Erebus* and *Terror*, which formed the fleet, had already proved their capacity for withstanding the strain and pressure of the ice floes. They each carried a crew numbering 67 officers and men, and while Franklin took charge of the *Erebus* with Captain Fitz-James, the *Terror* was commanded by Captain Crozier. The ships were provisioned for three years, and the task set them was to discover and sail through the passage from the

Atlantic to the Pacific Oceans. The intention of the Government was to ascertain whether or not this passage existed, and Franklin was instructed to go by Lancaster Sound to Cape Walker (lat. 74° N.; long. 98° W.) and thence south and west to push through Behring's Straits to the other ocean.

Franklin was full of enthusiasm as to the outcome of the expedition. That it would prove the existence of the passage he had no doubt, and subsequent events justified him. But he had bigger notions than merely proving the passage. "I believe it is possible to reach the Pole over the ice by wintering at Spitzbergen and going in the spring before the ice breaks up," he said before starting, and no one would have been surprised had he returned in the three years with a record of the journey. Public interest was thoroughly aroused in the enterprise, and when the two vessels set sail from Greenhithe on May 19, 1845, they had a brilliant send-off. On June 1 they arrived at Stromness in the Orkney Islands, and on July 4 at Whale Fish Island, off the coast of Greenland, where the despatch boat *Barreto Junior* parted company

with them to bring home Franklin's despatches to the Admiralty, reporting "All Well." Later on came the news that Captain Dannett, of the whaler *Prince of Wales*, had spoken them in Melville Bay.

Then the months passed and grew into years, and still no sign or token was received from them. Public opinion, stimulated by the interest taken in the departure of the expedition, began to grow anxious at the prolonged silence; but the last despatches had been received and the last tidings direct from the ships had come to hand. Over their subsequent actions and adventures the heavy veil of the Frozen North hung until intrepid searchers raised it and learned the sad but gallant story of how the North-West Passage was discovered and the route to the Pole marked clearer.

When the *Erebus* and *Terror* parted company with the despatch boat on July 4, they shaped their course through Baffin's Bay towards Lancaster Sound. Continuing their way, they passed Cape Warrender and ultimately reached Beechy Island at the entrance of the then unexplored waters of Wellington Channel. They passed

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through the channel, taking such observations as were necessary as they went, until they had sailed 150 miles. Further progress being stopped by the ice, they passed into another unexplored channel between Cornwallis Island and Bathurst Island which led them into Barrow's Straits, nearly 100 miles west of the entrance to Wellington Channel.

The ice was now forming thickly around them, and attention was directed to discovering a comfortable haven where they could come to rest and remain while the ice closed in around them during the long winter months. A suitable harbour was found on the north-easterly side of Beechy Island and the ships were made snug. All the spars that could be sent down were lowered on to the decks, and the rigging and sails stowed away below before the ice surrounded them, so that when the floes began to pack and lifted the hulls of the vessels, there should be no "top-hamper" to list them over. On the frozen shore huts were built for the accommodation of shore parties, and, as the ice spread around and the snow fell, the men found exercise and amusement in heaping it up against

the sides of the vessels as an extra protection against the cold, the thick mass of frozen snow preventing the escape of the warmth from the inside of the ships. But where there were fires always going to maintain the temperature of the cabins, the danger of an outbreak of fire had to be zealously guarded against. With all the ship's pumps rendered useless by the frost and the water frozen solid all around, a conflagration on board a vessel in the Arctic seas is one of the grimmest of terrors. The safeguard is the maintenance, in the ice near the vessel's side, of a "fire hole," that is, a small space kept open by constant attention down to the level of unfrozen water.

During the long winter months there was plenty of time to estimate the progress they had made, and there must have been considerable satisfaction on all sides at what they had accomplished. They had circumnavigated Cornwallis Island and had reached to within 250 miles of the western end of the passage.

The first Christmas festival of the voyage was kept up with high revel. If fresh beef was not available, venison was, and there was plenty

of material for the manufacture of the time-honoured "duff." The officers and men, clad in their thick, heavy fur garments, clustered together as the simple religious service was read, and over the silent white covering of sea and land the sound of their voices rolled as they sang the hymns and carols which were being sung in their native land. Then came the merry-making and the feasting in cabins decked with bunting, for no green stuff was available for decorating.

The first New Year's Day was saddened by the death of one of their comrades, and the silent ice fields witnessed another impressive sight when the crews of both vessels slowly marched ashore to the grave dug in the frozen soil of Beechy Island. The body, wrapped in a Union Jack, was borne by the deceased man's mess-mates, the members of his watch headed by their officers following, and after them the remainder of the officers and crew. The bells of each ship tolled as the *cortége* passed over the ice, the crunching of the crisp snow under foot being the only other sound till the grave was reached. There the solemn and impressive service of a



A CHRISTMAS . . .
DINNER IN THE
ARCTIC REGIONS

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sailor's funeral was said, the mingled voices as they repeated the responses passing as a great hum through the still cold air. A momentary silence followed as the flag-swathed figure was lowered into the grave, and then a quick rattle of firearms as the last salute was paid echoed far and wide among the icebergs.

Twice more was that scene repeated before the ships cleared from the ice, and one of the first signs discovered by the searchers after Franklin were the three headstones raised on that lonely isle to the memory of W. Braine, John Hartwell, and John Torrington, who died while the ships were wintering in the cold season of 1845-6.

By July the ice had broken up and the voyage was resumed and passed without any exceptional incident, up to the middle of September, 1846, when they were again caught by the ice, but 150 miles nearer their destination than the year before. Only 100 miles more to be sailed over and they would be the conquerors—but that 100 miles was too firmly blocked with ice-floes for them ever to sail over.

The winter of 1846-7 was passed just off the

most extreme northerly point of King William's Land. The ice was particularly heavy, and hemmed the vessels in completely, the surface being too rugged and uneven to permit of travelling in the immediate vicinity even of hunting parties. This was the more unfortunate because the provisions were growing scant, and supplies brought in by hunters would have been of great assistance. At the time of starting, the vessels had only been provisioned for three years. Two had now passed, so that only a twelvemonth's stock of food remained in the holds. It might occupy them all the next summer in working through the remaining 100 miles of the passage, and that would leave them with another winter to face, unless they were sufficiently fortunate in finding open water when they reached the end. But, on the other hand, they might not be able to get through in the time, or the passage might not be navigable. Either possibility was full of very grave anxiety for those in command, for it was a terrible prospect of being left, with 130 men to feed, in the midst of the frozen sea, "a hundred miles from everywhere."

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The anxiety felt was shown by the despatch, as early as May, or two months before the first flush of summer was due, of a specially selected party of quick travellers to push forward over the ice and spy out the prospects ahead. Lieutenant Graham Gore, of the *Erebus*, commanded the party, which consisted of Charles des Voeux, ship's mate, and six seamen. They carried only enough stores to last them on their journey, and each one had to contribute his share to the labour of hauling the hand sledges over the jagged ridges of broken ice. Skirting along the coast of King William's Land, they arrived at a point from the top of which they were able to discern the mainland coast trending away to the horizon, with a sea of ice in front. It was the long-dreamed-of end of the North-West Passage.

To commemorate the fact the little party built a cairn upon the summit of the point, which they named Point Victory, and enclosed in a tin canister they deposited, under the cairn, a record of their trip and its result. Twelve years later this record was found, and by it the honour due to Franklin for the dis-

covery of the passage was confirmed. But the manner of its finding must be told later on.

Elated with the success of their efforts, Lieutenant Gore and his companions retraced their way back to the ships, for, with the end of their journey so near at hand, all fears of the provisions running short were at an end. As soon as the ice broke up they would be away into the sea they had seen from Point Victory, and sailing home with their mission accomplished, their task completed, and nothing but honour and glory waiting them at home. As soon as they came within sight of the two ships, perched up among the ice ridges, they shouted out to their comrades to let them know of the success achieved. Round about the ships they saw men standing in groups, but instead of answering cheers, the men only looked in their direction. Unable to understand why so much indifference was displayed, Lieutenant Gore and his companions hurried forward, and, as they came nearer, some of the men separated themselves from the groups and came to meet them with slow steps.

Soon the cause of their depression was made

known to the returned explorers. The leader of the expedition lay dying in his cabin on board the *Erebus*.

Lieutenant Gore, his enthusiasm at his success sadly damped, went on board the flagship at once, hoping that the news of victory might still be given to Sir John before he died. He was led into the cabin and briefly told the story of his journey, and how, from Point Victory, he had looked out over to the coast of the mainland. The news, the last which Sir John Franklin was to hear on earth, was perhaps the sweetest he had ever known, for it meant that he had triumphed and had won a lasting name and memory for his services to sovereign and State. On June 11, 1847, his life ended at the moment of his brightest achievement.

Captain Crozier, of the *Terror*, assumed command of the expedition, and as summer was at hand, everything was made ready against the time when the ice would break up. Ice-saws were fixed ready to cut passages through the floes when they began to separate, and ice-anchors were run out so that the vessels could

be warped along whenever an opening occurred. Daily the crews mustered on board and looked over the ice for some sign of the breaking of their imprisonment, for some loosening of the iron grip of the ice round their vessels' sides, but all in vain. The two ships were wedged in a vast mass of ice, through which it was impossible to cut their way. Instead of breaking up into lesser fields and floes of ice, the mass remained packed, creaking, crashing and straining by night and day as it slowly made its way nearer the coast of the mainland, carrying the ships with it until they were within 15 miles of Point Victory, and 60 miles of the mainland coast.

Soon the short summer months had passed and the dark period of winter was upon them again, with the provisions daily growing scarcer, and the hope of getting their ships out of the ice fainter. Another evil came upon them when amongst the members of the crew scurvy, the dreaded enemy of the early Polar explorers, broke out. By the following April twenty of their number had succumbed to it, nine being officers, and one of whom was Lieutenant Gore.

On April 22, 1848, the remaining 105 officers and men gathered on the ice around the two ships. They had with them sledges laden with what provisions were left, and two whale boats, and slowly and sorrowfully they bade farewell to the vessels which had been their homes for nearly three years, and set out to march over the ice to the mainland. Their plan was to push on until they reached the Great Fish River, where they might obtain succour either from travelling bands of Indians or at some outlying station of the Hudson Bay Company. Travelling at the rate of five miles a day, so rough and difficult was the route, they arrived on April 25 at the cairn where Lieutenant Gore had left the record of his journey over a year before. The canister in which it was enclosed was opened, and round the margin was written this brief, pathetic story.

“April 25, 1848. H.M.S. *Terror* and *Erebus* were deserted on April 22, five leagues N.N.W. of this point, having been beset since September 12, 1846. The officers and men, consisting of 105 souls, under the command of Captain F. R. M. Crozier, landed here in lat.

69° 37' 42" N., long. 98° 41' W. The paper was found by Lieutenant Irving in a cairn supposed to have been built by Sir James Ross in 1831, four miles to the north, where it had been deposited by the late Commander Gore in June, 1847. Sir James Ross's pillar has not however been found, and the paper has been transferred to this position, which, it is thought, is where Sir James Ross's pillar was erected. Sir John Franklin died on June 11, 1847, and the total loss of life by death in the expedition has been to this date nine officers and fifteen men. Start to-morrow, April 26, for Back's Fish River."

The record, left as a sign, should it ever be found, of the direction they had taken, the party resumed their dreary march over the frozen shores of King William's Land. The men formed themselves into teams for the purpose of dragging the sledges and whale boats, and the officers marched beside them, helping them and encouraging them. Even the snail's pace of five miles a day became too severe a strain for many of the men, weakened as they were by attacks of scurvy and reduced rations. Soon it became

evident that if a place were to be reached where help and food could be obtained before the provisions were absolutely exhausted, it would be necessary for the stronger to push forward at a more rapid rate.

A council was held, and it was decided that the strongest should take enough supplies to last them for a time and push forward as rapidly as possible, while the remainder should follow at a slower rate and by shorter stages. The majority were in the latter division, and only a few days elapsed after the smaller band, numbering about thirty, had left, before the ravages of scurvy and semi-starvation made it impossible for even less than five miles a day being covered. So debilitated were all the members that further advance was abandoned until they had, by another long rest, tried to recuperate their energies. But the terrible bleakness of the place where they were wrought havoc among them, and every day men fell down never to rise again, until the only hope for the survivors lay in returning to the ships, where, at least, they would have shelter. Wearily they staggered over the rugged ice ridges, each man expending his remaining energies in striving

to carry the provisions, without which only death awaited them. Men fell as they walked, unnoticed by their companions, whose only aim was to get back to the ships, and whose faculties were too dimmed to understand anything else. Blindly, but doggedly, they stumbled onward, silent in their agony, brave to the last when worn-out nature gave way and they sank down, one after the other, till none was left alive and only the still figures, lying face downwards on the frozen snow, bore mute witness of how they had neither faltered nor wavered in their duty, but had died, as Britons always should die, true to the end.

Their comrades who had left them to push forward for help were equally stolid in their struggle against overwhelming odds. As they were crossing the ice between King William's Land and the mainland, a great cracking of the floes startled them with the fear that the ice was breaking up. Hastily placing their stores in the whale boat, which they had been dragging in addition to the hand sledges, they abandoned everything else, fearful lest the sudden opening of the floes might cut them off from a further advance. Harnessing themselves to ropes, they

toiled and struggled onward with the boat. They reached the mainland, but at a terrible sacrifice, for in their haste they had left much of their scanty supplies behind. Their food ran out and hope was almost dead, when they espied a small camp of Eskimo.

Fresh life came to them as they learned that they were nearly up to the Great Fish River, and they bartered away some spoons and forks, Sir John Franklin's star, part of a watch and some other metal articles to the Eskimo for a recently killed seal. Had they waited longer with the natives, they might have obtained more food and have recovered somewhat from their fatigue, but in the mind of each was the memory of their stricken comrades toiling on behind, and hoping from day to day for the arrival of relief. Personal feelings were forgotten before that memory, and the gallant little party resumed its way, fighting with all the dauntless bravery of heroes to win help for their weaker friends—fighting till their limbs refused to move, till their starving bodies were numbed and frozen. Then, falling in their own footsteps, they passed away, one by one, silent and uncomplaining, to the list of Britain's honoured dead.

CHAPTER III

The Search for Franklin

Captain Parker's Report—Government Offers a Reward—Dr. Rae's Expedition—Captain McClure's Voyage in the *Investigator*—Hardships and Perils—The Meeting with the *Herald*—Lady Franklin still Hopeful—Sir F. L. McClintock's Expedition in the *Fox* with Lieutenant Hobson—Their Sad and Fatal Discoveries—Lieutenant Schwatka Recovers the Body of Lieutenant Irving.

THE enthusiasm which was aroused over the departure of Sir John Franklin's expedition gave place to a deep national anxiety as the years passed without any word being received of its whereabouts. On October 4, 1849, the *Truelove* arrived at Hull from Davis Straits, and her commander, Captain Parker, reported that he had heard from some Eskimo that the *Erebus* and the *Terror* had been seen in the previous March fixed in the ice, and apparently abandoned in Prince Regent's Inlet. No confirmation was ever obtained for this report, but it served to excite public anxiety still more, and expeditions began to be organized for the relief of the missing explorers. In all, twenty-one expeditions were sent, of which eighteen were British and three American, to search the neighbourhood where it was anticipated Sir John and his gallant band would be. Coals, provisions, clothing

and other necessaries were deposited at different spots in the hopes that they would be found by, and be of use to, the castaways. But, as has already been stated, none were able to give succour to the men for whose use they were intended.

A great deal of valuable and highly interesting work, however, was done, and in addition to at length discovering enough relics of the party to show that all the members had perished while carrying out their duty, an amount of knowledge was acquired which made the North-West Passage familiar, located the Magnetic Pole, and opened the way for more recent and equally brilliant journeys towards the Pole itself. The general public, as well as the Government, were responsible for search expeditions; but to stimulate the enterprise, the British Government offered a sum of £20,000 to any party of any country that should render efficient service to the crews of the missing *Erebus* and *Terror*. Half that reward was paid to Dr. Rae, who discovered the relics of the party which are now at the Greenwich Museum, and which consist of Sir John Franklin's star, some spoons and forks,

the remains of a watch, and some other metallic odds and ends.

The story of this discovery was briefly told by Dr. Rae in a letter to the Admiralty. He was, in 1854, surveying the coast of the mainland immediately south of King William's Land, when he encountered a small party of Eskimo hunters. He asked them whether they had ever met other white men, and they told him that four summers before (1850) a number of white men had been encountered by some Eskimo who were catching seals off the south coast of King William's Land. The white men came from over the ice, and were dragging a boat behind them. By signs they made the hunters understand that they were hungry, and a seal was exchanged for the articles Dr. Rae was shown. Then the white men went on walking over the ice, dragging the boat behind them, one walking in front alone, and all the rest pulling the ropes attached to the boat. A few weeks later they were seen again, this time on the mainland, but all were dead. The place where they were found was about one day's journey from the Great Fish River, and all had evidently died

of cold and starvation. They had erected tents and had turned the boat over for a shelter, and some of the men lay under the boat, while others were in and around the tents. One man was some distance away with a telescope slung over his shoulders, and underneath his body was a double-barrelled gun. This man, they said, was the chief of the party.

About the encampment there were plenty of guns and ammunition, but no food. More than likely the unfortunate castaways were too weak from want to be able to hunt, for Dr. Rae, in his reports, stated: "I may add that with our guns and nets we obtained an ample supply of provisions last autumn, and my small party passed the winter in snow houses in comparative comfort, the skins of the deer shot affording abundant warm clothing and bedding."

Next to the story of Dr. Rae's discovery comes the account of the finding by Lieutenant Hobson, on May 6, 1859, of the record left on Point Victory, and after that again, the recovery, in 1879, by Lieutenant Schwatka, of the United States Navy, of the bodies of several

of the *Erebus* and *Terror* crews. But meanwhile a glance may be taken at some of the thrilling adventures which befell the different relief expeditions. The account of Captain McClure's voyage in the *Investigator*, and graphically told by himself in his reports to the Admiralty, is full of typical Arctic adventures.

The *Investigator* was one of several ships forming one of the expeditions. After sailing in company for some time they separated to work over set areas. The *Investigator* was to enter the Polar Sea and sail along the North-East Passage. She was soon amongst the ice, and sailed on in a depth of 150 feet of water until the pack showed a solid unbroken line from east to west in front. Then she sailed along it, in the hopes of finding an opening; but all that could be seen, beyond the ice, was a vast number of walrus, lying upon it huddled together like sheep. Between the ice and the land, however, there was open water, and here the *Investigator* shaped her course, keeping well in towards the shore on the look-out for natives. There was an inter-

preter on board, Miertsching by name, so that whenever any natives were encountered inquiries could be made for tidings of the missing explorers. At Cape Bathurst, near the Mackenzie River, a part Franklin had explored many years before, a large tribe was observed, and at once a boat party put off from the ship.

As they approached the shore, thirty tents and nine winter houses were seen, and the boats were run ashore. Immediately a tremendous stir was caused in the village, the men running to and fro and then charging down a steep slope to where the boats were aground on the beach. As they drew near it was seen that each man carried a drawn knife in his hand, as well as bows and arrows, and their warlike intentions were still more clearly shown when they fitted arrows to the bows and began to aim at the white men. The interpreter Miertsching, clad in native costume, advanced from the explorers towards the angry Eskimo, holding his hands above his head in the position which expresses peace amongst these primitive people.

They paused as they saw him, and waited

until he came up; but although they put back their bows and arrows when he told them no one wished to harm them, they would not relinquish their knives. As they crowded down to the boats, the captain told him to explain to them that they must put their knives away; but the chief of the tribe immediately retorted, "So we will, when you put down your rifles." To prove their peaceful intentions, one of the rifles was given to the chief to carry while the explorers remained with them, and this action so effectually satisfied them that no harm would be done to them that they offered to let their visitors take charge of their knives.

The village contained over three hundred men, women, and children, and was formed for hunting purposes. The mass of ice showing across the open passage they said was the land of the white bear, an animal which they explained was very plentiful and of which they were greatly in fear. Several tales were told of the savagery of these creatures, a woman pitifully bewailing the loss of her little child, who was carried off by one of them when playing at the water's edge within her sight.

A less mournful story was that of a seal hunter who, having speared one seal, was sitting by the side of his victim waiting for the mate to appear above the water, when he felt a tap on the back. Suspecting a trick by a fellow-huntsman, he did not turn round, whereupon he received a heavy blow on the side of the head which sent him sprawling. As he scrambled to his feet, angry at his comrade's roughness, he saw a big bear walking off with his seal.

Upon the interpreter explaining how the white men's rifles could kill the bears, the chief at once invited him to come and live with them, offering as inducements his own daughter, a pleasant-looking girl of about fifteen, a fully furnished tent, and all the other necessary possessions of a well-to-do Eskimo. Failing in that, they invited the explorers to a feast of roast whale and venison, salmon, blubber, and other delicacies; but instead of taking from them, the explorers presented them with a number of gifts, and left them on the best of terms.

A few days later and farther along the coast

another small band was encountered, one of whom was wearing a brass button in his ear. The button was off a sailor's jacket, and upon being asked how he obtained it, the man replied it had been taken from a white man who had been killed by the tribe. He was asked for further particulars, in case the unfortunate might turn out to be one of Franklin's men. The Eskimo replied that it might have been done a year ago or when he was a child, but the huts the white men had built were still standing. The explorers at once persuaded him to take them to the spot, but on arrival they found the huts so weather-worn and overgrown with moss that more than a generation must have passed since they were built.

This was not the only occasion when hopes were raised that some of the missing expedition were about to be discovered. As the *Investigator* continued her voyage along the coast, heavy volumes of smoke were seen rising from a bluff, and the man on the look-out in the crow's-nest at the top of the foremast cried out that he could see white tents and men with white shirts on near them. At once

everybody was on the alert, and boats were lowered and rowed quickly to the shore. But on close inspection the white tents were found to be conical mounds of volcanic formation, and the smoke, which was also volcanic, was rising from fissures in the ground.

Winter was now setting in, and as there was no suitable harbour at hand, Captain McClure determined to pass the season amongst the ice-floes. His decision was largely due to the fact that as the ice was forming around them, a great mass of old ice, over six miles in length and drifting at the rate of two miles an hour, came upon them. Its enormous weight crushed everything out of its way, and the ship could only manœuvre sufficiently to graze it with her starboard bow. Fortunately on the other side of her there was only freshly formed and comparatively thin ice, otherwise she would have been hopelessly crushed at once. As it was, the gradual drifting past of the mass was disconcerting, and it was decided to make fast to it. A great mass which they ascertained extended downwards for forty-eight feet below the surface of the sea was selected, and with

heavy cables the *Investigator* was made secure to it. Throughout the winter she remained moored to it, though not without more than one experience of danger.

Soon after making fast to the ice, the first bear of the season was shot. He was a magnificent specimen, measuring over seven feet, but upon being cut up considerable speculation was roused as to the contents of his stomach. In it was found raisins, tobacco, pork, and some adhesive plasters. For some time the combined intellect of the ship's company was exercised to explain where the bear could have obtained such a varied diet, and many suggestions were advanced in explanation. Franklin's ships might be near, some said, or the crews might be encamped on the neighbouring land, and Bruin might have looted their stores. No one struck the correct solution of the mystery until some days later a hunting party came upon a preserved meat tin partly filled with the same sort of articles as were found in the bear's stomach. He had evidently found the tin and sampled its contents, not entirely to his enjoyment, as he had left the larger portion behind.

But whence the tin had come they never learned.

The winter passed without mishap, and then they began to watch for the breaking of the ice. When it began, they had a very narrow escape from destruction. A light breeze springing up the day after open water appeared among the floes, the pack to which the *Investigator* was attached began to drift. It was carried towards a shoal upon which a huge mass of ice was grounded. A corner of the pack came in contact with the great stationary mass with a grinding shock that sent pieces of twelve and fourteen feet square flying completely out of the water, and as the immense weight of the moving pack pressed forward, there was a sound as of distant thunder as it crushed onwards. The weight at the back caused an enormous mass to upheave in the middle of the pack, as though under the influence of a volcanic eruption. The great field was rent asunder, the block to which the *Investigator* was attached taking the ground and remaining fixed, while the lighter portion swung round and, with accelerated speed, came directly towards the vessel's stern.

To let go every cable and hawser which held her to the block was the work of a moment, for every one was on deck keenly on the look-out. The moving mass caught her stern and forced her ahead and from between the moving floe and the stationary mass. The two came into grinding collision, and the men on the deck of the vessel saw the great bulk to which they had been attached slowly rise. It went up and up until it had risen thirty feet above the surface and hung perpendicularly above the ship. It towered higher than the foreyard, presenting a spectacle that was at once grandly impressive but terribly dangerous, for if it fell over upon the *Investigator* she would be crushed to atoms. For a few moments the suspense was awful, till the weight of the floe broke away a mass from the great bulk, and it rolled back with a tremendous roar and rending and, with some fearful heaves, resumed its former position. But no longer could it withstand the pressure, and it was hurried forward with the rest of the floe, grinding along the bottom of the shoal.

The pack having set in towards the shore,

the only hopes of safety lay in keeping with the ice, for if the *Investigator* was pushed ashore by it there would be little chance of her ever floating again. She was consequently made fast again and carried along, though with a tremendous strain on her stern and rudder. It was discovered that the latter was damaged, but there was no possibility of unshipping it for repairs while the ice was moving. Towards the afternoon the wind having dropped, the drift became less, and for five hours the rudder received attention.

Scarcely had it been replaced when once more the ice began to move, and the crew saw that they were being forced directly upon a large piece of the broken floe which had grounded. Feeling certain that if the ship were caught between the grounded mass and the moving floe nothing could save her from being crushed to pieces, a desperate effort was made to remove the great mass. The chief gunner, provided with a big canister of powder, went on to the ice and struggled over the rugged surface until he reached the stationary mass. He intended to lower the canister under the

mass before exploding it, but the ice was too closely packed around it to permit of this being done. There was no time to consider any other plan, so he fixed the blast in a cavity and, firing the fuse, scrambled back to the ship.

The charge exploded just as the pressure of the floe was beginning to tell, and the result was apparently valueless. The *Investigator* by this time was within a few yards of the great mass, and there seemed to be no hope of escaping from the crush. Every one on deck was in a state of anxious suspense, waiting for what was evidently the crisis of their fate.

Most fortunately the ship went stem-on, as sailors term it, and the pressure was directed along her whole length instead of along her sides. Every plank seemed to feel the shock, and the beams groaned as the pressure increased. The masts trembled, and crackling sounds came from the bulwarks as she strained under the tension. Momentarily the men expected that she would collapse under them, when the result of the gunner's blast was made manifest. It had cracked the mass in three places, and the pressure of the ship's stem forced the cracks

open. The liberation from the obstacle was at once evident as the mass slowly divided and, falling over, floated off the shoal. The cable holding the vessel to the floe parted as she surged forward and the ice-anchors drew out, while the blocks of ice, as they turned over, lifted her bows up out of the water and heeled her over; but the cheer which broke from the assembled crew drowned all other noise, for it was as though they had been snatched from the very jaws of death.

Subsequent examination of the vessel showed that she had escaped practically without serious injury. Several sheets of her copper were stripped off and rolled up like scraps of paper; but as no leaks were discovered, the loss of the copper was not greatly deplored.

After escaping from these dangers it was hoped that open water would be found, so that the voyage might be continued to other areas which had to be searched, and, as the *Investigator* drifted along amongst the partly broken up floes, she encountered some rolling swells, which increased the hopes that open water was not far ahead. But in this the crew were dis-

appointed, for although the water near the land was sufficiently free from ice to enable sail to be made, out toward the Polar Sea the pack was heavy and close.

They rounded Cape Lambton on Banks' Land, a promontory which they found rose a thousand feet precipitately. The land beyond they found gradually lost the bold character of the rugged cape, the island presenting a view of hills in the interior which gradually sloped to the shore, having fine valleys and extensive plains, over and through which several small and one considerable sized streams flowed. A great deal of drift-wood lay along the beach, and the land was covered with verdure upon which large flocks of geese were feeding, while ducks were flying in great numbers. Two small islands were passed off the coast, one of which afforded an example of the force exerted by a drifting Polar Sea ice-floe. The island rose about forty feet above the surface of the sea, and the broken masses of ice which had formed a floe had been driven entirely over it.

The pack still presented an impassable barrier to their course away from the land, and as the

season was getting late they decided that they would make winter quarters. A suitable bay was found on the north of the island, and there they spent not one but two winters, for the ice remained so thick during the ensuing short summer that it was impossible to move. In the summer, however, if they could not get to sea, they could travel on to the land, and as game was plentiful they were able to keep themselves well supplied with fresh meat. But when winter again came upon them with its cold darkness, the game was scarcer, and, what was worse, the ship's stores were decreasing.

As perhaps another twelve months would have to be faced, every one went on reduced rations, so that the stores should be made to last as long as possible. The approach of the milder weather Captain McClure determined should be made the occasion of a daring expedition. A few of the men were beginning to show signs of sickness, and the captain decided that they should set out in April for the mainland with enough provisions to carry them through. The ship was so slightly affected by the buffeting she had received that the leader

could not bring himself to think of abandoning her while he had any stores left and men who were ready to remain with him. Only the least robust of the crew were to go as the over-landing party, and they were to travel to the nearest station of the Hudson Bay Company, and from thence press on to England with despatches for the Admiralty requesting help and provisions for those who remained by the ship. Everything was arranged, even to the date of departure, which was settled as April 15. But before that day arrived another incident was to transpire.

On April 10, Captain McClure and his first lieutenant were walking over the ice near the ship, discussing the serious turn events had taken, for one of the men had just died from scurvy, and some of the others were in a bad state of health. This was the first death which had occurred, and it naturally cast a gloom over every one. As the two walked, they espied a man coming rapidly towards them from over the ice. He was hastening so much that they thought he must be flying from a bear, and they went forward to meet him. But

as they approached him, they saw that he was not one of their own ship's company, for he was of a different build to any of their men, in addition to which his face showed black from between his furs, and he was waving his arms wildly. They stopped, doubtful what to make of him, and he rushed up, still gesticulating and articulating wildly.

"Who are you, and where do you come from?" McClure exclaimed sternly.

"Lieutenant Pim, of the *Herald*, Captain Kellett," the strange figure managed to reply, as he seized McClure's hands and shook them frantically.

Rapidly he told the astounded couple his story, for Captain Kellett, of the *Herald*, had bid McClure God's speed as he was entering the Polar Sea three years before, and the commander of the *Investigator* could not understand how he could have reached Banks' Land.

The *Herald* was one ship of another expedition which had come in search of the gallant Franklin. She had wintered at Melville's Island, and Lieutenant Pim had set out across the straits with a sledge party on March 10.

For a month they had been wandering, and he had happened to be on ahead of his men when he caught sight of the *Investigator* in the distance. He had pushed on to ascertain who she was, when he saw and recognised Captain McClure. His astonishment and excitement overmastered him, and he could only halloo and shout and jump about in his glee.

The noise of his shouts reached the vessel, and the crew, hearing a strange voice, came tumbling up from below to see who it was that had arrived. The sight of the *Herald* sledge party soon afterwards completed their surprise and gratification, for it meant that close at hand was all the help they needed to successfully insure their liberation.

The whole ship's company journeyed across to where the *Herald* lay, and in the interchange of yarns and the assurance of abundance of food and rest till the ice broke up, they found just the requisite stimulus to overcome all the evil effects of their past trials and privations. With a few men from the *Herald* to relieve the members of his crew who were on the sick list, Captain McClure returned to the *Investigator*

after a few days, and when the summer arrived he worked his vessel out into open water. Then he joined company with the *Herald* and sailed for England, whither his despatches and reports had already preceded him and earned him fame.

The return of Captain McClure and the result of his discoveries, together with that of other expeditions, and Dr. Rae's find of Franklin relics, satisfied the British Government that further search was unavailing. As the account of Sir John Franklin's voyage had not yet been found, the honour of proving the existence of the North-West Passage was, for the time being, accorded to McClure, and the Admiralty, satisfied that all the members of the Franklin expedition had perished, and the ships either been abandoned or destroyed, ceased despatching any further search parties.

There were, however, a large number of people who were by no means satisfied that everything possible had been learned as to the fate of the *Erebus* and *Terror*. Lady Franklin, Sir John's second wife, was one who refused to give up hopes, and largely

through her efforts yet another vessel was sent out. This was the *Fox*, under the command of Sir L. F. McClintock, and the voyage was more profuse in the obtaining of evidence as to the fate of the Franklin party than all the rest put together.

McClintock made his way directly to King William's Land, with a definite programme in view. He and his first lieutenant, Hobson, were each to journey with sledge parties along the coast of that island and examine everything which suggested a chance of learning the fate of the missing explorers. Especially were they to seek for any natives and glean from them, by means of presents and barter, any knowledge they might have, or any *relics* which might remain amongst them, of the two ill-fated ships.

The *Fox* was a screw steamer, a fact which very largely contributed to the success of the expedition, as she was able to make steady progress, whereas a sailing vessel would have had to wait for favourable winds, and so probably lose a great deal of very valuable time. She sailed from Aberdeen on July 1, 1857, and

returned on September 22, 1859, accomplishing in her two years' absence an amount of discovery which placed all question of the fate of the *Erebus* and *Terror* and their crews beyond a doubt.

As soon as the *Fox* was made snug in winter quarters, McClintock and Hobson set out over the ice in search of some Eskimo. They were fortunate in discovering a couple of seal hunters, who told them that some distance away there was a larger party, amongst whom was a man with knowledge of the missing explorers. They set out with their two friends, but as night was coming on while yet they had not reached the camp, they decided to stay where they were till the morning. The two Eskimo, for one needle apiece, built a snow hut for them in an hour. All of them went inside the shelter, which they found very acceptable, and prepared their supper. The food they carried consisted of salt pork and biscuits, but the two Eskimo would not look at it. Their supper consisted of a piece of bear's blubber instead, and when they had consumed it they squatted on their haunches and, with their heads drooped

forward on their knees, went off to sleep for the night.

The following day the main camp was reached, and the white men at once realized, by the number of articles of European manufacture in the possession of the Eskimo, that they must have discovered the abandoned ships. One of the men told them, through the interpreter, that several years before there was a ship in the ice off the coast, but that when the ice melted it had sunk in deep water. He pointed out the direction where the ship had been, and where there had been a lot of drift-wood thrown up on the beach—wood out of which, he explained, they had made their spear handles and tent poles. Other relics were gradually forthcoming, upon the production by the white men of the barter they had with them, and a brisk trade was carried on, knives and needles being exchanged for spoons, forks, and other objects unmistakably from the wrecked ships. In addition to the relics, some dogs were also secured.

The latter purchase afforded them considerable amusement and often excitement before

they were entirely masters in the art of dog-team driving. Like everything else worth doing, it has to be learned, and in his account of his journeyings McClintock quotes one or two instances where experience was his only teacher. He found, for instance, that when a dog team is harnessed up to a sledge, every dog does not pull his hardest, and a suggestion from the whip is advisable. The dog, however, is inclined to resent it, and at once bites his neighbour by way of protest. The neighbour in turn bites his neighbour, who does the same, until the whole team has received the sting arising from the first lash, and every dog is howling and snapping and jumping over one another. The application of the whip handle instead of the whip lash is then necessary, and when at length quiet is restored, the driver has to set to work to unplait the harness, which has been twisted and tied into a terrible tangle by the antics of the team. When, at the expense of a great deal of patience and time, everything is ready for a fresh start, the inexperienced driver is able to estimate the value of cracking the whip over, instead of on, the back of a lazy dog.

Even then, however, it is not all plain sailing. The dogs possess a wisdom of their own, and they never act so well together as when they reach a piece of particularly rough ice over which the sledge does not move easily. Directly they find that they have to lean heavily against the collar to pull the load forward, they with one accord turn round, sit down, and look at the driver. If he is inexperienced, he lays about him with his whip, and the dogs fight and tangle the harness; if he knows his animals, he puts his shoulder to the sledge, pushes it forward on to the toes of the team, whereupon each one gets up, hurries out of the way of the threatening sledge-runners, and together pull it easily over the rough place.

Another peculiarity of the dogs is their extraordinary appetite for leather. Shark skin the Eskimo consider to be bad for them because of its excessive roughness, but birds' skins, with the feathers on, are greatly relished by the insatiable feeders, and, as has been said, leather is an especial luxury. The dogs are incorrigible thieves, and frequently sneak into the tents or, if on board ship, into the cabins, in search of

plunder. They are generally greeted with a kick, but should it be sufficiently energetic to dislodge the kicker's shoe, the dog at once seizes the delicacy and makes for a quiet spot on the ice where he can devour it at his leisure.

The dogs, however, which McClintock was able to obtain from the Eskimo were genuinely useful to him when he and Lieutenant Hobson began their prolonged search, and his only regret was that he could not get more. Later explorers have profited by his experience, and now an expedition is never considered complete that does not carry at least one team.

After leaving the Eskimo encampment, search was continued along the southern coast of King William's Land, but without very much success. Returning, they again met the same tribe of Eskimo, and discovered that when one of the race speaks he does not necessarily tell all that he knows. During a conversation between the interpreter and one of the young men, the latter made a reference to the ship that came ashore. As the man who had previously mentioned the ship said that it sank in deep water, the young man was asked how it could have

come ashore under those circumstances. The other one sank, he said; the one he meant came ashore where he had seen it.

Further inquiries showed that both the ships had been seen and visited by the Eskimo while they were yet in the ice. One of them they could not find how to enter, so they made a hole in her side, with the result that when the ice melted she filled and sank. In one of the bunks they found a white man lying dead, but no other bodies were near the ship.

Now that they had been discovered in their attempt to evade the truth, they spoke readily enough, giving the exact locality where the ship had come ashore. Thither McClintock and his companions at once proceeded. They found enough evidence in the driftwood on the beach to show them where the vessel had gone to pieces; but whether it was the *Erebus* or the *Terror*, there was nothing to show. They had now, however, a definite point from whence to commence their search, and they laid out the probable routes by which the escaping crews would have travelled. Separating into two parties, so as to cover as much ground

as possible, they started, Lieutenant Hobson leading.

On May 25, 1859, McClintock, while walking along a sandy ridge from whence the snow had disappeared, noticed something white shining through the sand. He stooped to examine it, thinking it to be a round white stone, but closer inspection showed it to be the back of a skull. Upon the sand being removed, the entire skeleton was found, lying face downwards, with fragments of blue cloth still adhering to its bleached bones. The man had evidently been young, lightly built, and of the average height. Near by were found a small pocket brush and comb, and a pocket-book containing two coins and some scraps of writing. He had evidently fallen forward as he was walking, and never risen. As an old Eskimo woman told Dr. Rae, "they fell down and died as they walked along," overcome with cold, hunger, and sickness.

The explorers were now in the region where all their finds were to be made. Five days later McClintock came upon a boat which he found, from a note attached to it, that Hobson had already examined. It had evidently escaped

the notice of the Eskimo, and, until the white men found it, had probably not been touched by human hands from the moment its occupants had died. It was mounted on a sledge, as though it had been hauled over the ice; but from the fact that its bows pointed towards the spot where the ships had been, it was surmised that the men were dragging it back to the vessels when they were overcome. Inside were two bodies, one lying on its side under a pile of clothing towards the stern, and the other in the bows, in such a position as to suggest that the man had crawled forward, had laboriously pulled himself up to look over the gunwale, and had then slipped down and died where he fell. Beside him were two guns, loaded and ready cocked, as though the man had been apprehensive of attack. There was also as many as five watches, several books (mostly with the name of Graham Gore or initials G. G. in them), abundance of clothes and other articles such as knives, pieces of sheet lead, files, sounding leads and lines, spoons and forks, oars, a sail, and two chronometers, but of food only some tea and chocolate.

The story mutely told by these relics was only too plain. Weary with hauling it, the majority of the men had left the boat in order to get back to the ships and obtain a fresh supply of provisions, leaving two, who were too weak to struggle on, in the boat as comfortable as they could be made until some of the others could get back to help them. Then the days had passed until the store of provisions had been consumed and the two sufferers had grown weary with waiting, so weary that one had slept and died under his wraps, and the other, with his remaining vestige of strength, had crawled forward to peep out once more for the help that was so long in coming. But only ice had met his gaze, and, sinking down, he had also passed into that overwhelming sleep, and had lain undisturbed for twelve years under the covering of the Arctic snows.

Close search was made in the vicinity of the boat for the remains of any other of the lost explorers, but nothing was discovered except driftwood. The spot where the boat was found was about fifty miles from Point Victory, sixty-five from the place where the ship had gone

ashore, and seventy from the skeleton that McClintock had discovered on the ridge.

A few days' march farther on, a cairn was noticed upon the brow of a point near Cape Victoria. On ascending to it, McClintock found another note from Hobson, stating that he had already examined it and recovered from it the record which the crews had deposited there upon the desertion of the ships, and which is given in the account of the Franklin voyages. This was the final triumph of the search, for it conclusively proved that Sir John had been dead before the ships were abandoned, that he, and not McClure, was the real discoverer of the North-West Passage, and that the expedition had ended in a disaster as pitiful as the commencement had been brilliant. Round the cairn were strewn innumerable relics, showing that the three days which had elapsed from the time of their leaving the ships had been sufficient to further decrease the strength and vitality of the scurvy-stricken unfortunates.

No further discovery of moment was made after the unearthing of the vital record, but Lieutenant Hobson had some experience of what

the Franklin explorers must have suffered. He had abundance of food with him and that of the best and most nutritious, but he developed scurvy on his journey, and when he reached the *Fox* he could not walk without assistance. No wonder, then, that Franklin's men, starving as well as sick, should have died by the way.

The return of the *Fox* in September, 1859, effectually set at rest all doubts as to the fate of the *Erebus* and *Terror*, and no more search expeditions were sent out. But in 1879 Lieutenant Schwatka, of the United States Navy, made an overland journey to that part of King William's Land where the crews had perished. He found many more skeletons, doubtless of members of the ill-fated expedition, and wherever he found one lying above ground he buried it with proper ceremony, except in a single instance.

This was in the case of an open grave of stones in which the remains of a skeleton, with some blue cloth adhering to it and some coarse canvas around it, was lying. Near the remains he also found a silver medal bearing

80 LIEUT. IRVING'S REMAINS FOUND

the words, "Awarded to John Irving, Midsummer, 1830. Second Mathematical Prize."

The presence of the medal identified the remains as being those of Lieutenant Irving of the *Terror*; and, as this was the only instance where identification was possible, Lieutenant Schwatka carefully and reverently gathered them together and carried them to New York, from whence they were forwarded to Edinburgh, Irving's native town. There they were accorded a public funeral on January 7, 1881.

CHAPTER IV

The Voyage of the *Polaris*

Death of Captain Hall—They Determine to Return—Are Frozen in—A Party Take to the Ice and are Cast Away—They Build themselves Snow Huts—They Find some Seals—An Adventure with Bears—The Perils of the Spring—They Sight the *Tigress* and are Saved—The Ship-Party's Story and Rescue.

THE Government of the United States, in June, 1871, despatched the *Polaris* to explore and survey the passage between Grinnel Land and Greenland, and also, if possible, to push on to the Pole.

The *Polaris*, under the command of Captain Hall, sailed from New York on June 29, 1871, with a crew of thirty-three, and provisioned for some years. She succeeded in passing through Smith's Sound and Robeson Channel, and on August 31 she had reached as high a latitude as 82° 11' N. Returning to the southward, she went into winter quarters; but on November 8 her captain was struck down with apoplexy. Upon his death all idea of going farther to the North was abandoned, and as soon as the spring of 1872 commenced, preparations were made to return to New York.

The ice was particularly heavy, however, and very slow progress was made when, by August, the *Polaris* became entangled with some big floes which checked her in every direction. On August 14, when off the entrance of Kennedy Channel, in latitude 80°, the ice closed round her and fixed her so firmly that every effort made by the crew to release her was without avail. A series of floes had closed one upon the other, and had so compressed themselves together, that all hope of extricating the *Polaris* until the ice itself broke up was reluctantly abandoned. The pack in which she was involved continued to slowly drift to the South until, two months after her capture, the ship had drifted in the ice to 78° 28' N. At this point a violent gale occurred, which resulted in the series of adventures for her crew that has made the voyage of the *Polaris* so notable.

As the gale increased in intensity, the huge field of heavy ice in which the vessel was imprisoned began to heave and grind in an alarming manner. The masses joined together by the force of earlier collisions broke asunder

under the strain of the wind, but only to close in again with terrific force and crashing. Every time that separated portions of the pack came together with a crash, the ice around the vessel creaked and moved, and the *Polaris* herself strained in every timber under the trial.

A sudden parting asunder of the pack where she was encased liberated her for the moment. Freed from the grip of the ice, the force of the wind was more evident, and she heeled over to the gale as it caught her in the temporarily open water. Before she could right herself, the ice closed in again upon her sides. The rending and crashing which followed the "nip" convinced all on board that the vessel was too crushed ever to float again, and while the floe held together and she was kept from foundering, the crew set about putting stores, tents, clothing, arms, and anything else they could lay hands on, over the side on to the ice. They feared that with the next split the vessel would be in the water again, and there was no doubt in any one's mind but that she would then sink

like a stone. No one knew how long it might be before that split came, and in the meantime every one worked at the only means of saving their lives. Nineteen of the ship's company scrambled out on to the pack and, as their comrades passed out the various stores and articles they were able to seize, those on the ice stacked them, as well as they could, on a massive hummock.

Through the wind and the cold they worked, neither pausing for rest nor refreshment. All around them the ice was heaving and grinding, and over them the cold northerly gale was blowing, and driving great clouds of snow across them; but they worked on, knowing only too well that in every barrel of food they rolled into security was contained a week of life for them. The driving snow made it more and more difficult to see, until the air was almost dark. With fearful force the wind howled across the icy expanse, and those on the pack crouched for some shelter behind the stores they had piled up by the hummock, waiting till the gale should have exhausted its fury.

The faint sound of a cry came to them from the direction of the ship, and they peered out through the gloom. Then a cry of despair broke from their lips, and they forgot the force of the wind and the cold of the driving snow as they sprang from behind their shelter. The ice had parted again, and down the long lane of open water which had been formed, the hull of the ship loomed as it swung away into the darkness.

Anxiously the castaways watched for the coming together again of the divided packs in the hopes that the *Polaris* would again be caught and held. Those who remained on board were equally anxious, for they knew the vessel must be leaking terribly, and to be left much longer in the open water meant that she would founder and they be drowned. A man ran to the rudder and tried to bring her round to the ice which glimmered through the snow storm, but the rudder was damaged too much for steering and the ship drifted on. Soon it was obscured from those on the pack, and the truth of their position dawned on them. Whether the ship had foundered or

not they did not know, but this was clear: they were adrift on an ice-pack which might at any moment split asunder and precipitate them into the freezing water, or, if it held together, carry them till they died of cold and starvation.

Either alternative was sufficiently gloomy to depress the spirits of the bravest; and as the nineteen cowered for shelter from the keen snow-filled wind behind their stack of provisions, into the mind of each there came a grim determination to fight while there was an ounce of food in the casks or a vestige of ice to float them. In the morning, when the storm had abated and the air was clear, they emerged from their shelter and looked about for a sign of the vessel. Some of them clambered up on to the top of the highest hummocks so as to command a wider field of vision, but they saw no more than those who remained below. All around them was ice, piled in heaps, or stretching out in flat expanses; but always ice, as far as the eye could reach, and nowhere a vestige or a sign of the *Polaris*.

They gathered together round the heap of stores and looked at one another in silence, each one reading the other's thoughts and always finding them the same as his own. The ship had probably gone to the bottom, with all on board, as soon as she broke away from the ice. The packs had closed again over the spot where she had disappeared, so that there was no chance of any spars or timber floating to the surface and confirming their suspicions. Everything was under the ice, everything except the scanty supply of provisions that had been put overboard.

At length one man spoke. It was no use mincing matters, he told his comrades. They would do well to realize the position they were in and, looking at it from the worst side, make the best of it and fight to the end. The vessel had gone, and all they had to keep them from starvation and death was the heap of stores and their own energy. There was no timber to build a raft, so that they could float if the ice broke up; there was no wood to waste on a fire. But as they had to keep afloat and warm if they were going to escape, he considered that first of all

88 A SITE FOR HUTS SELECTED

they should remove their stores to the thickest, heaviest ice they could find, and then set to work to build snow huts for shelter. Winter was coming on with its long spell of darkness, and there was no time to waste. It was every one's business to help one another and to do the best they could, working together and sharing whatever came, whether it was short rations or plenty.

The sentiments appealed to all the men, and they formed themselves into parties to carry out the scheme. Fortunately they had just passed one winter in the Arctic regions and knew, therefore, what was in front of them, and also how to carry out the building of snow huts and the other necessary makeshifts. A massive hummock, which apparently was too strong to be crushed, and solid enough to last through several summers without melting, was selected as the site of the encampment. The snow which had fallen during the gale was not quite hard enough for building huts at the moment, so while some of the party were overhauling the stores and arranging to move them to the hummock, the others were clearing away the snow from the

site of the camp and banking it up all round as a break-wind.

By the time the stores were placed in the enclosure, canvas shelters were erected for a temporary covering, pending the time when the snow became hard enough to cut for building blocks. It is only when the snow has become compressed by its own weight and frozen nearly solid by the cold that it can be cut into slabs or blocks for a hut. When it has become hard enough, the blocks are cut and the building commences. First a circle is laid, with a small space vacant where the doorway is to be. On either side of this opening the blocks are laid so as to form the plan of a porch, one side of which, in the present instance, was continued at right angles so as to turn the entrance passage towards the stack of provisions and thus shelter the doorway from the wind. As soon as the ground plan of the hut was laid, the surface of the blocks was moistened and other blocks laid upon them, and so on until the walls rose some five feet, the moisture making the blocks freeze hard to one another. The layers were now gradually lapped over the interior until a dome roof was formed.

Both inside and outside were then moistened and smoothed, and the cold air, freezing the moisture, glazed the entire structure with a covering of ice.

All the clothing, bedding, and weapons were taken inside. A lamp was constructed out of an empty preserved meat tin; it was filled with fat, and, with a piece of twisted tow for a wick, it lit up the interior of the hut and afforded some warmth as well. Heavy canvas curtains were suspended across the opening out of the hut at the inner wall, at the bend in the passage, and at the outer opening. Such of the packages of stores as were suitable were also brought into the hut, and upon them the blankets and furs were laid so as to make the sleeping places as comfortable as possible. The quarters were thus as good as the men could make them, but one anxiety still remained. The lamp would have to be kept going all the twenty-four hours, and especially during the long Arctic night; but the supply of fat was limited.

A hunting party was organized to search the pack for seals or walrus or any animal from which blubber could be obtained. Here again the experience of the previous winter and its

hunting exploits served them. A small opening in the pack was discovered a mile or so from the camp, and on the ice around the water three seals were resting, having evidently been caught in the ice when it closed. With great care the hunters crept over the ice towards the animals, whose sacrifice meant so much to the castaways. Only two had rifles, the others carrying harpoons they had made from the tent poles, and which were anything but reliable weapons. Steady aim was taken by the two men who had the rifles at the two larger of the seals. Firing together, one seal fell dead; the one which was not aimed at plunged into the water, and the other, badly wounded, hobbled to the edge of the ice. In another moment he would have been over and probably have sunk to the bottom, had not one of the men flung away his harpoon and, springing forward, managed to seize the hind flippers of the wounded creature. His comrades rushed to his assistance and dragged both him and the seal back from the opening on to the ice, where the latter was quickly despatched.

They were harnessing themselves to their victims in order to drag them over to the camp,

when a loud snort from the opening caused them to start round just in time to see the third seal disappearing under the water. At once they understood the situation. The opening was the only one for miles, and the seal was compelled to come to the surface there to breathe, as he could not reach the top anywhere else for the ice. It was at once decided to wait for him, but as, if he were shot while in the water, he would inevitably sink to the bottom and be lost to them, they determined to lay a trap for him. The seals already killed were placed in natural attitudes near the water, and the men hastily retired to sheltering hummocks, to wait the return. The men with the rifles were both to fire upon him as soon as he emerged on to the ice, for he was too valuable to be lost. They had not waited very long before he reappeared and, raising his head high out of the water, looked around. Seeing nothing but the two seals on the ice, he swam leisurely round and round the opening before scrambling up on to the ice. As he reached it and moved towards his two companions, the men, who had been carefully aiming at him, fired and killed him.

With the three seals, the party returned to the camp in high spirits, their arrival being the signal for general rejoicing, for not only would the blubber of the seals keep the lamp supplied with oil, but their skins were very welcome additions to the stock of warm coverings and the meat was an invaluable addition to the larder.

Really it was more, but of that they were not aware until two days later, when one of the men was awakened by the short barking roar of a bear. He quickly roused his companions, and they made their way out of the hut with what weapons they possessed.

The flesh of the seals had been suspended on a line between two poles near the other provisions so as to protect it from any chance visit by wolves or bears. As the first man peered out from the hut opening, he saw in the dim twilight two bears standing underneath the line of meat, sniffing up at it and growling. They had, it was afterwards learned, picked up the trail where the dead seals had been dragged from the opening in the ice, and had followed it to the camp.

The man whispered back to his companions

what he saw, and another man, armed with a rifle, crept to his side. Aiming together behind the shoulder of the larger of the bears, they fired simultaneously and brought their quarry down. Immediately the other bear turned towards the opening and with snarling teeth advanced. A third rifle was fired point-blank at its head, but the bullet failed to penetrate the massive skull, though it made the beast change its direction. As it turned away the men realized what it meant if it escaped, and there was a rush after it, the men loading and firing as quickly as they could load, so as to secure it before it disappeared in the dim grey twilight. It fell wounded, and was despatched by means of the impromptu spears.

This adventure not only made a notable break in the monotony of the life on the pack, but gave the men a subject for conversation during the long weary period of darkness, as well as increasing their store of fat, fresh meat, and warm covering. No further animals were seen or heard, although every one was constantly on the alert, and the opening where the seals were killed was visited daily until it froze over. Then

the last vestige of twilight vanished and darkness settled down upon the ice.

For eighty-three days the sun was absent, and during that time the cold was intense. The lamp was the only means of artificial heat they possessed, and even of that they had to be careful, for the supply of fat was not inexhaustible, and no one knew when it could be replenished. In the coldest weather the men huddled together under their blankets and furs, anxious and weary. They had no means of finding out in what direction they were moving, for the constant creaking of the floe led them to believe that they were drifting somewhere. Whether it was to the North or to the South they could not tell, and yet upon the direction in which they were moving their salvation depended.

Never, perhaps, was the return of the sun more welcomed than by the desolate castaways on the floe. But its appearance and the commencement of spring was not entirely an unmixed blessing. The rising temperature naturally caused the ice to break up, and as the floe upon which they were marooned gradually decreased in size, fresh anxiety was

caused to them by the possible danger of their haven being broken up. As the days passed, they saw their food supply growing smaller and smaller, until starvation stared them in the face, and hope was almost dead. April came, and with it all the privation and suffering consequent upon insufficient food and wearying, helpless, and almost hopeless, inactivity. The last day of the month arrived and found them with the last morsel of food consumed. A man clambered to the summit of the hummock in the hopes of seeing a seal somewhere on the ice. His comrades thought that he had lost his senses when he shouted wildly and, clambering down, ran towards them, dancing and shouting.

Over the top of the hummock he had caught sight of a ship, and the excitement caused by his news was soon eclipsed as the castaways saw the signals they made answered from the vessel. Boats put off for them and took them on board the ship, which was the *Tigress*, a sealer from Labrador.

They found that in the 196 days they had

spent on the floe they had drifted over 1,500 miles from the latitude in which the *Polaris* was beset on October 12. For the time they believed they were the only survivors of the expedition, but in this they were wrong. The remainder of the party also escaped, though without undergoing quite the same hardships as themselves.

When the *Polaris* broke away from the ice, she did not sink, but drifted rapidly before the gale through the open channel. Captain Budington, who had assumed command when Captain Hall died, and the twelve men who remained on board, managed to keep the disabled vessel afloat, but they could do no more until she again became involved in the ice. By that time all hopes of returning to the place where the other men were on the ice was abandoned, and as the water was fairly open the efforts of the crew were mainly directed to warping the ship towards the coast. By good fortune she managed to escape from the crushing packs, and with tireless effort and great care she was at length brought within sight of land. Then

she was caught in the ice along the shore, and so severely nipped that her ruin was complete. She, however, did not sink, and her crew were able to reach the land.

Selecting a site for an encampment, they removed thither enough timber from the broken-up vessel to construct a house, to which they also removed enough stores to last them. When these necessaries were secured, they brought more timber ashore, and, during the long winter night, they employed themselves in constructing a couple of boats. It was a laborious task, and but slow progress was made until daylight returned. Then they were able to carry on the work faster; but it was the middle of May before they had them finished and seaworthy.

As soon as the ice began to break up, they launched the boats, which were fully provisioned from the wreck, and on June 3 they sailed away to the South. Three weeks later they sighted a whaler, the *Ravenscraig*, who took them aboard, and within a few months of their comrades, whom they thought

had all perished, landing in America from the *Tigress*, the boat party also landed, having saved, in addition to themselves, all the records of the surveys and observations made by the expedition. These were of great geographical value, making known much of the neighbourhood of the straits between Greenland and Grant's Land. The expedition, although attaining to a high latitude, did not succeed in reaching the Pole, but their adventures made a fascinating chapter in the history of Polar research.

CHAPTER V

The *Alert* and *Discovery*

Sir George Nares Appointed to the *Alert* and *Discovery*—Overtaking a Season—Red Snow—The Greenland Mosquito—Peculiarities of Eskimo Dogs—And Dog Whips—Dangers of Kayaks—Advantages of Steam for Polar Regions—An Unpleasant Experience—A Huge Walrus—Arctic Scenery—A Big "Bag"—The Ships Part Company—The *Alert* Reaches the Polar Sea—Winter Quarters—The North Pole Attempted—Adventures and Sufferings of the Party—Lieutenant Parr's Heroism—Deliverance—The Greenland Attempt—Scurvy and Snow—Repulse Bay—In Pitiable Plight—Lieutenant Rawson to the Rescue.

"**H**ER Majesty's Government, having determined that an expedition of Arctic exploration and discovery should be undertaken, My Lords Commissioners of the Admiralty have been pleased to select you for the command of the said expedition, the scope and primary object of which should be to attain the highest northern latitude and, if possible, to reach the North Pole."

Such was the opening sentence of the official instructions sent to Sir George Nares to take command of the *Alert* and *Discovery*, two steam vessels, which constituted the first expedition the British Government had sent to the Arctic regions since the search parties for Sir John Franklin. It was confidently expected that the introduction of the screw steamer into Arctic navigation would result

in startling achievements, and those expectations were fully justified.

The two ships, with H.M.S. *Valorous* in consort with provisions, etc., on board, left Portsmouth on May 29, 1875. They were home again by November 2, 1876, and during the intervening eighteen months they had reached the most northerly point attained by man up to that period, and only since exceeded, on the sea, by Nansen and the *Fram*.

No greater contrast can be given of the enormous strides which had been made in navigation during the thirty years which had elapsed since Franklin sailed away on his last and fatal voyage, than the fact that whereas after six weeks' journeying Franklin had barely reached the region of drift ice, in six weeks from the date of leaving Portsmouth the *Alert* and *Discovery* were almost in the region of perpetual ice. And all owing to the application of steam to ocean travelling.

The route laid down for the expedition was along the western coast of Greenland and as far through Robeson Channel, which divides Grinnel Land from Greenland, as it was

possible to get. Disko Bay, half-way up the Greenland coast, was the spot where the *Alert* and *Discovery* were to part company with the *Valorous*. They entered the bay on July 4, having had, on the voyage to the North, the peculiar experience of chasing and overtaking a season. When they left Portsmouth at the end of May, summer was well in; but when they arrived at Disko Bay, they found that the mild weather which forms the spring had not yet set in sufficiently to melt all the winter's snows. So that they had travelled quicker than the summer, having started after it had begun in England, and arrived in Greenland before it was due.

The early spring flowers were just commencing to flower on the slopes around Disko, from whence the snow had melted, while higher up on the hills where the winter's snow still lay, the explorers had an opportunity of looking upon that curious phenomenon, red snow. A minute animalcule (*Protococcus nivalis*) generates in the frozen covering of the earth, and increases so rapidly and in such vast numbers that it gives to its cold white

habitat the hue of its own microscopic body. Another minute creature also breeds in enormous numbers in these bleak regions, the mosquito, which one usually associates with dense tropical jungles and fever-breeding swamps. All along the Greenland coast, wherever there is a pool of fresh water which thaws from the ice-grip, the larvæ of the mosquito appear in swarms in the spring, and very shortly after, the full-fledged insect emerges in the utmost vigour of irritating stinging life. As the time is short between the period when the ice melts and when the water freezes again, the Greenland mosquito has to be active to work out his life mission before he is frozen off, and the skin of all visitors to his locality gives ample evidence of how well he utilises his opportunities.

In addition to taking on board the surplus stores from the *Valorous*, the two Arctic ships also took on board teams of dogs for sledging purposes. Fifty-five in all were shipped, their quarters being situated on the main deck, where they were necessarily cramped for room, and, what was worse from their

point of view, were unable to get at one another's throats owing to their being chained to bolts. Consequently they kept up a constant chorus of snarls and yaps, varied now and again with a howl as one or another received a remonstrating kick from a sailor.

This interminable uproar was explained by the Eskimo dog driver, who was also taken on board, as being due to the fact that most of the dogs were strangers to one another, and no one was the properly constituted king as yet.

When Captain McClintock purchased a team of dogs from the Eskimo of King William's Land, he had a good deal to learn about their peculiarities; but the people on the *Alert* and the *Discovery*, having a great many more dogs than he was able to obtain, had also a great deal more to learn about them. Sir George Nares, in his account of the expedition, gives some particulars which were furnished by his Eskimo dog driver, and these show that the sledge dog is quite as wise as one might expect from Captain McClintock's experiences.

In every team of dogs, one is the king. He holds that position by prowess only, and has to fight and thrash every other dog in the team before he can assume the leadership. When he has once assumed it, he has to keep it by the same means; for revolutions may at any moment occur, through some younger dog aspiring to the ruling position. But while a dog has the position of authority, he exercises his rights with decision, and the remainder of the team cluster round him and support him in emergencies, or lie at his feet in times of leisure. The only one who is allowed to snarl at him without at once being bitten is the queen. She is among her sex what the king is among his; for though she depends more upon him for her prominent position than to her own fighting qualities, she maintains it, when once obtained, by a free use of her jaws upon encroachers.

Consequently, when a number of teams were brought together on the decks of the vessels, all strangers to one another, there was a tremendous amount of fighting in prospect before peace could be granted. Firstly the kings of the various teams were anxious to tussle for

the supremacy ; and with the prospect of some of them getting badly mauled, there were several inferiors in each team ready to do battle with their injured monarch, and when he was disposed of, with one another, for the leadership. But their new masters, instead of letting them all loose to settle their various degrees of authority in their own hereditary fashion, tied them up where they could see and hear one another without exchanging a bite. The kings, naturally warlike and ferocious, could only snap at their inferiors as they bayed in their rage, and the inferiors could only bay in their pain, and so between them the ship's company were kept awake by night and annoyed by day.

When at length opportunity occurred for liberating the dogs and giving them some exercise over the ice, great care had to be taken so as to prevent a wholesale melee. Each team, as they were freed from their deck chains, were led on to the ice and made fast to a sledge, two men being in charge of each sledge for the purpose of learning how to drive. And a highly exciting time they had of it, for not

only did every dog want to start in its own direction as soon as they were harnessed, but every team wanted to attack every other team directly they appeared.

Nor were the troubles of the drivers limited to the dogs. The whip which is used for sledge teams consists of a very short handle and a very long lash. In the hands of an expert it is a most effective weapon, being capable of producing a resounding crack or a stinging blow wherever the wielder desires. But in the hands of a novice it is, like the Australian stock-whip, prone to do everything that the wielder does not wish. The amateur driver of a team, growing impatient as his dogs set off at full speed in various directions, and, besides tangling the harness, upset the sledge and themselves and very nearly himself as well, lashed out viciously at the worst offender; but the lash, instead of bringing the creature to his senses, curled back and hit the striker across the face, or twined round the legs of his companion with disastrous results. Meanwhile the Eskimo driver was going from one group to another, trying to explain the mysteries of the

art, much to the amusement of the onlookers and the indignation of the inexperienced amateurs.

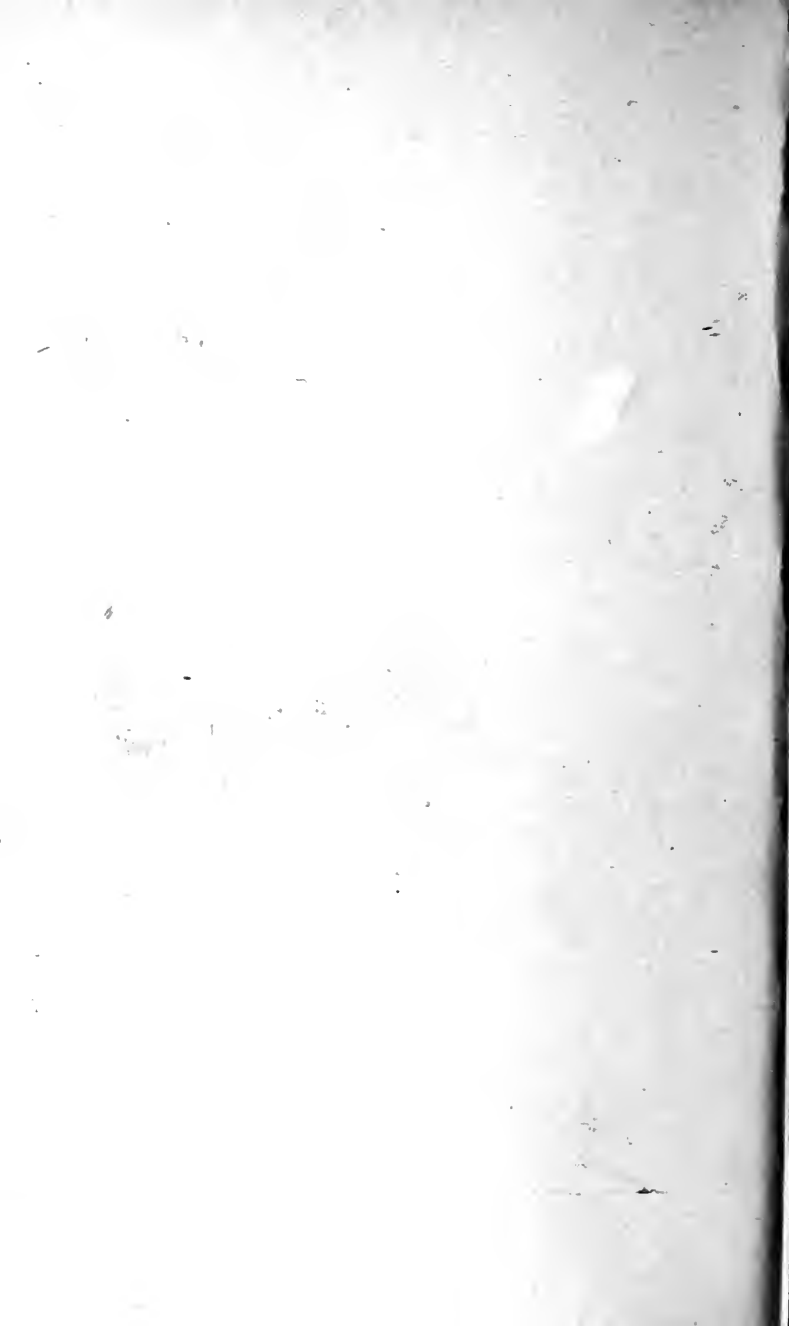
During the wait at Disko, another form of Arctic travelling was practised by the officers of the expedition. This was the use of the Eskimo kayak.

The kayak is a long narrow canoe, entirely covered in with a waterproof covering. The voyager sits in the middle in a small round hole, the covering lapping over the edges and being fastened round the waist. The kayak is thus made as buoyant as a life-belt, whether floating on an even keel or upside down. By reason of their build, they are peculiarly "cranky" craft, turning over at the least provocation, and so require extremely careful handling, unless one is an adept at swimming and diving. The experience of one of the officers made this clear. He had securely strapped himself in when, by a false stroke of the paddle, he overturned the kayak. He could not get it back again and was unable to loosen the cover; there was only one way of escape, and that possible alone to a man familiar with being



Y.H. (1) 10 P.S.

CROSSING ICE STRAITS
IN KAYAKS LASHED
TOGETHER



under water. Loosening his clothes, he wriggled out of them and came to the surface just in time to avoid drowning.

Having taken on board all the stores that the *Valorous* carried, as well as a full supply of coal, the *Alert* and the *Discovery* started in company for the North. The advantages of steam navigation were made even more apparent as they proceeded, for the ships were able to steam through ice-encumbered water which would have been almost impassable for sailing vessels. Depending so much upon the wind, a sailing vessel is only able to make headway amongst heavy drifting floes by means of long hawsers, run out and made fast to a mass of ice and then slowly hauled in at the capstan. Steamers, on the other hand, experience no difficulty in forcing their way past and between the lesser floes, and Sir George Nares, who had had a great deal of experience of sailing vessels in the ice regions, was frequently astounded at the ease with which the two steamers rammed their way, clearing lumps of ice from out of their course which would have been difficult obstacles to a sailing ship.

Every one on board, however, was not to escape without some experience of the peculiarities of ice movements. The vessels were going to make fast for the night, and a boat's crew was sent from the *Alert* to carry an anchor to a large heavy mass not far distant. On near approach it was seen that the lump was very rotten, and as no hold for the anchor could be found near the water-line, one of the men volunteered to clamber up to the top and, with an ice chisel, make a hold for it. He clambered on to the slippery, treacherous mass, and after a great deal of very careful exertion, succeeded in reaching a point high enough for his purpose. He began lustily to drive in the chisel, but so rotten was the ice that instead of merely chipping out a crevice he cracked the top of the lump. Another blow, and, to his intense amazement, a huge mass in front of him slid away. Gliding down the side, fortunately away from the boat, it splashed into the sea. But the removal of so much from the top of the berg upset its balance, with the result that it swayed from one side to the other as it recovered its equilibrium. The unfortunate sailor, with no-

thing to cling to, had to scramble up and over the summit as the berg dipped down; but no sooner was he on the top than the berg swung over the other way, and he had to scramble back again. There was no means of escape until the berg settled down once more, and in the meantime his companions in the boat and on the steamer were shouting with laughter at the antics of what they called their squirrel on the iceberg.

While he was in his lofty if unsteady position, however, he noticed on a floe not far distant three walrus, and as soon as he returned to the ship and reported his discovery, a boat with a harpoon and two rifles was despatched. The three animals lay contentedly enough on the ice, paying scarcely any heed to the advancing boat, with the result that all were hit. The two that were shot slid off into the water and sank, but the one that was harpooned could not escape. He was an immense creature, measuring over twelve feet in length and eleven feet round the thickest part; his tusks were over eighteen inches long, and, when cut up, he yielded five casks of meat weighing 1,250 lbs.

As the two vessels advanced farther to the North they found that the character of the ice was very different from that met with in the neighbourhood of Baffin's Bay and Lancaster Sound. It was more massive and heavy, a berg they passed towering nearly 300 feet above the water-line, and floes frequently occurring some miles in length and standing 50 feet out of the water. The possibility of being caught between such masses and "nipped" was a constant danger, for no vessel could possibly withstand the tremendous pressure exerted by two floes of that size colliding. A constant look-out had to be maintained from the crow's-nest for any sign ahead of the floes closing in, and by careful navigation anything like a severe "nip" was avoided.

By August 24 they had made such excellent progress as to be nearly at the end of the hitherto explored channel. A southerly wind was helping them along, but about four in the afternoon it began to die away. They were then in Bessel Bay, and in order to see how the ice was ahead, Sir George Nares decided to land and climb to the top of Cape

Morton, which is some 2,000 feet in height. From the summit a magnificent view was obtained, of which the following description is given by Sir George Nares in his account of the expedition:—

“It was a beautiful morning, with scarcely a cloud in the sky. The cold, sharp wind which had benumbed us at the sea level was local, for, on the summit of the cape, it was perfectly calm. Sixty miles distant in the south-west were the Victoria and Albert mountains of Grinnel Land, fronted by Hans Island showing clear of Cape Bryan, which had Hannah Island nestling at its base. Farther north was an elevated spur from the main range which, rising between Archer Fjord and Kennedy Channel, formed Daly Promontory. Fronting these mountains, and directly separated from them by an extensive valley extending to the northward from Carl Ritter Bay, was the black buttress-shaped cliff forming Cape Back, the southern extremity of the nearly straight running line of flat-topped coast hills extending twenty miles to Cape Defosse. From that point the coast line

became more hilly, and joining the Daly mountains, extended to Cape Lieber, a bluff headland, with Cape Baird, a low, flat point, jutting out beyond it. Still farther north were the lofty mountains of Grant's Land with steep cliffs about Cape Union, though seventy miles distant distinctly visible, forming the western extremity of Robeson Channel. Nearly due north a slight break in the continuity of the land showed where Robeson Channel opened into the Polar Sea. On the eastern side of the strait, at a distance of forty miles, was Cape Lupton, the notable landmark denominated Polaris Promontory, then came Polaris Bay with the low plains leading to Newman Bay. At my feet lay Cape Tyson and Cape Mary Cleverly on the north shore of Petermann Fjord, rising to an elevation of 1,500 feet."

In this district, picturesque and beautiful as portrayed by the explorer's description, the *Discovery* wintered, while the *Alert* went on farther North. The spot where the *Discovery* was left, and which was named Discovery Bay, was a large, well-protected inlet inside an

island, the outer point of which formed Cape Bellot. In the summer it was sparsely covered with loose ice, but in the winter sea, hills, cape and plains were all covered in the one white garb. As the two vessels entered the bay early on the morning of August 25, what at first were taken to be nine boulders were observed on the shore; but as the vessels swung to their anchors, the boulders were observed to move away. At once the cry of "musk oxen" was raised, and boats were hastily lowered, filled with sportsmen keen for the chase. The oxen, disturbed by the noise, made for the higher ground, where they were followed by the enthusiastic shooting party until every one of the nine was brought to the ground.

The following day, August 26, the ships parted company, the *Alert* taking with her an officer and a sledge team of men from the *Discovery*, with the idea of sending them back overland when winter quarters were selected, an idea which had to be abandoned by reason of the impassable nature of the country. On the last day of the month the *Alert* met a

particularly heavy floe, the ice forming it being of the massive character which denoted that its origin was the Polar Sea. Once the grinding mass of hummocks, rising higher than the vessel's decks, threatened to catch her. There would have been no hope of escape if they had, and only by persistently ramming her way through some of the looser ice did she escape in towards the shore. Next day a strong gale sprang up from the south-west, and the *Alert* went along at ten miles an hour in an open channel between the land and the heavy pack which was drifting about three miles out. By midday they reached latitude $82^{\circ} 24' N.$, and the flags were run up to the mastheads amid general rejoicing, for it was the farthest point North to which a ship had yet sailed.

With the channel showing clear ahead of them and the spanking breeze astern, expectation was high on board that they would be able to sail right up to latitude 84° , but within an hour their hopes were suddenly and thoroughly checked. On hauling to the westward they rounded a promontory and found

that the land trended away to the west. The wind veered round to the north-west and drove the ice in upon the channel, which gradually became narrower until, when off Cape Sheridan, the main pack was observed to be touching the grounded ice, and effectually barring all further progress. The *Alert* was run close up to the end of the channel, and then, when it was certain that there was no chance of getting through the barrier, she was anchored to a floe which rested aground off the cape. The next day, as the heavy ice of the pack was grinding against the stranded floe, and an opening just large enough for the vessel to get in was observed in the floe, she was warped into the basin.

She was barely inside when a solid hummock crushed against the opening, forming a great barrier between the vessel and the outer moving pack. Had it struck there a few minutes earlier the vessel would have been severely injured by the "nip," but as it was the hummock formed an admirable shelter from the pressure of the pack. This was often so severe that masses over 30,000 tons in

weight were broken off and forced up the inclined shore, rising twelve and fourteen feet higher out of the water as they crunched along the ground.

On September 4 new ice formed on the water in which the ship was floating, and from observations taken from high land in-shore all doubt was removed as to where they were. They had navigated to the end of Robeson Channel and were now in the Polar Sea. No land could be seen to the north; nothing but a vast wilderness of huge masses of Polar ice, most of which had evidently been frozen for years. At midnight on the same day they saw the last of the sun as it sank below the northern horizon.

Winter was now upon them, and they set to work to make their quarters as comfortable as possible. Snow came down heavily for some days, but not for a week or so was it hard enough to cut into the blocks suitable for building snow houses. When these were built, stores were removed to them and observatories fitted up for recording the various conditions of the atmosphere. On September 14 a severe

gale sprang up, which caused the ice to move so much that the thin new ice in the basin was broken up and a boat's crew were drifted away on to a floe-berg 200 yards from the ship, from whence they were only rescued after great difficulty and in a half-frozen condition.

Some days subsequently, while a sledge party was on shore, one man was badly frost-bitten. He did not know it until some time after, but he had tried to thaw his frozen foot-wraps in his sleeping bag instead of first removing them. The loss of feeling and then of use in his legs crippled him, and when he was brought on board it was seen what was wrong. This is one of the several evils men have to carefully guard against in the excessive cold. So long as they experience the stinging sensation of cold, they are free from a frost-bite; but a man may have his face bitten and not realize it until he is told that he has turned dead white. Circulation has then been arrested, and immediate steps have to be taken to bring it back, or the flesh becomes dead.

The dogs also began to suffer from a disease

which sent them into fits, and which puzzled the Eskimo driver and the doctors. Some of them wandered away over the ice and others died, until only fifteen remained out of thirty, and many of those were thin and weakly. Then, as the cold increased, ice formed in the chimneys, and damp settled on the beams and walls between decks every time the cold air was admitted, so that it had to be constantly sponged up, while the officers had to spread waterproof coverings over their beds to protect themselves from it when they slept.

On November 8 it was so dark at midday that a newspaper could not be read, nor could a man be distinguished a dozen yards away. For eighty-seven days more the sun would be absent, but the moon visited the dark, cold skies, appearing for ten days without setting, and then going out of sight for thirteen. On November 13 the cold was so intense that the mercury froze in the thermometer.

But if it was dark and cold outside, the ship's company made themselves comfortable. A school was started, a theatre was opened—the Royal Arctic—and every Thursday they

had popular concerts. Exercise was taken daily, and the general health was excellent, only one man being on the sick list, and he from a constitutional cause. The men were warmly clad when "between decks," as the temperature there was never what one might term hot; but before going outside they had to wrap themselves up in a variety of thick heavy fur garments, for there was often a difference of nearly one hundred degrees to be experienced.

The long stretch of winter's darkness was also varied by the appearance, from time to time, of the aurora. This was the phenomenon which so greatly puzzled, and not infrequently terrified, the early explorers. Assuming a variety of forms, sometimes like the fringe of a vast curtain hanging in the sky, at others appearing as bands and streaks of light, waving and flickering over the heavens, but always with this peculiarity, that however bright they appeared, no light was given to the surrounding atmosphere, they were a source of constant interest to the men.

And so the winter passed, not entirely without its pleasures, in spite of the prolonged

darkness. With the beginning of spring active preparations were made for the sledging trips, which were to carry out the work of surveying the surrounding land and penetrating farther to the North than it was possible for the vessels to go. The great majority of the officers and men on the *Alert* were told off for these expeditions, six officers and six men remaining on board, while fifty-three were split up into two parties, one to survey the coast of Grant's Land, and the other, under Commander Markham and Lieutenant Parr, to go North—to the Pole if possible.

The day the start was made the two parties were drawn up in line alongside the ship, and the chaplain read prayers, after which, with cheers for one another and the men left behind, they started.

Both did good service, the survey party carrying the survey round the coast well on to the western side. The North Pole party pressed on in the face of terrible difficulties until they reached the farthest point North that had yet been recorded.

In addition to the sledges laden with stores,

they dragged with them two whale-boats in case they should meet with open water. But there was no sign of it as far as they went. On the contrary, their route lay over such excessively rough ice that although they travelled as a rule about ten miles a day, so much of it was spent in getting round inaccessible hummocks, that the actual progress towards the North rarely exceeded one mile a day.

When on April 11 they bade their comrades farewell, they had provisions for seventy days, and all were in good health and spirits. The work of dragging the boats and sledges up and down the great masses and rugged ice which covered the Polar Sea was terribly trying, however, and by the time the ten miles were covered every one was ready to creep into the sleeping-bags and rest. As the sun began to rise above the horizon it made the snow and ice sparkle and glitter so much that their eyes, accustomed for so long to darkness, could not stand it. Goggles had to be worn to protect the sight, but before they were adopted by all the members several were affected, and Lieutenant Parr for some days suffered from snow blindness, an

affliction which fortunately passed away in time.

As the days went by, the toil of dragging the sledges over the interminable and monotonous ice became more and more wearying. There was no variety in the work, no change in the surroundings; and although the men stuck at their task with true British obstinacy, it began to tell upon them. One man fell sick, growing weaker and weaker until he was no longer able to pull, and then was unable to walk. One of the boats was abandoned, and the sick man laid on a sledge. His condition was more than disquieting to the leaders, for it was evident he was suffering from scurvy, and no one could say who would be the next to develop it.

On April 23 they only added a mile and a quarter to their distance, for they had come upon clumps of ice hummocks which made their progress so difficult that they had to combine forces to haul first one sledge and then another over the obstacles. On April 28, when they were seventeen miles from the shore, they found the track of a hare in the snow, going towards the land, but with the footprints so close together

that the animal was evidently very weak. Where it had come from, or how it had got so far from the shore, were riddles they could not solve.

As May came in signs of scurvy made themselves only too evident among the members of the crew, and on May 11 the leaders decided that the next day they would have to turn to the south once more. They started with a light sledge in the morning and pushed on till noon, when they took their bearings. They had reached latitude $83^{\circ} 20' 26''$ N., and were then only $399\frac{1}{2}$ miles from the Pole itself, having beaten all other records of Arctic explorations.

The little band, weary and sickening, forgot their woes in the presence of their achievement. A jorum of whisky had been presented to the expedition by the Dean of Dundee on condition that it was opened in the highest latitude reached. It was now produced, and the success of their efforts was toasted, the while each man smoked a cigar, also sent for consumption in the "farthest North."

A hole was cut in the ice and soundings were taken, the sea being seventy-two fathoms (432

feet) deep below them with a clay bottom, the surface temperature being 28.5° and the temperature at the bottom 28.8° . Then they turned their backs upon the cold, bleak, ice-bound North, and began the journey home again, a journey which was to prove more trying than that which they had already accomplished.

The man who had first sickened, and whose name was Porter, had become so weak that he could not move from the sledge on which he lay wrapped in a sleeping-bag. Gradually one man after another began to lose his strength, until three or four were only able to support themselves, and could give no assistance in hauling the sledges, with the result that the labour pressed all the more heavily on the remainder of the party, all of whom were more or less affected by scurvy. The first fortnight of the return journey was a terribly wearying time to the leaders, for they saw their men becoming weaker every day, so that the progress was slower and more difficult, while at the same time the only hope of escape was to reach land. On the coast it would be possible for relief to meet them, but out amongst the rugged hum-

mocks of the Polar Sea the whole ship's company would not be able to find them. The extra work thrown upon those who were not entirely incapacitated told severely upon their already enfeebled systems. The toil no longer encouraged their appetites; instead, the sight of food became nauseous to them, until towards the end of the month half a pannikin of pemmican was more than each man could manage to eat. But the toil was still as weary, and the cold as intense, and without sufficient food to keep up their strength, the outlook was almost hopeless.

Still, however, the little band of seventeen struggled on, setting an example of courage, determination, and absolute devotion to discipline and duty which has won for them as deep an admiration as their achievement of the "farthest North" record. On June 2 only six men and the two officers were able to do anything in the way of labour. Five men lay sick and helpless on the already laden sledges, and four more were just able to stagger along from point to point after the dreary procession of sledges. The progress was very slow now, as it required all the strength which was left

in the eight who were able to do anything to move one sledge at a time. The second boat had been abandoned, as it could not be dragged farther, and the strain of moving the three sledges that remained was so great that when, on June 5, land was reached after an absence of two months, the entire party was in a state of collapse.

The next day they rested and debated what was the best course to adopt to obtain help, for it was outside of their power to drag the sledges any farther. Porter was almost at death's door, and unless help came very soon several more would be in a similar condition. Lieutenant Parr was the strongest, but even he was in a very low condition. That, however, did not rob him of his courage, nor of his readiness to give the rest of his life, if necessary, for the rescue of his comrades.

He volunteered to set out alone for the ship, and carry word of the terrible plight of the party, and the need for instant relief. It was almost a hopeless task, and the heavy hearts of the stricken men, beating more hopefully at the token of such manly bravery, drooped

again as they remembered the dreary miles of snow and ice which would have to be covered, and saw the weakened state of their would-be rescuer's strength. But he was not to be gainsaid; weak as he was, he was yet the strongest of the party, and he would make the attempt.

On June 7 he started, the little band watching him as he trudged bravely away, and giving him as hearty a cheer as they could. Slowly he made his way over the frozen shore, and when he had passed out of sight the men looked at one another and wondered. How far would he get before death overtook him? How long before they all yielded to the same conqueror?

By the next morning one had already gone, Porter passing away after nearly two months' fighting against the scourge. Commander Markham and the four who were alone able to help him, paid the last honours to their deceased comrade. The British ensign was lowered to half mast on the pole of the big sledge, and a Union Jack was carefully wrapped round the body. With great exertion, in their

emaciated condition, a place was hollowed out in the frozen soil, and there they placed him, the funeral service being read by Commander Markham, who, in his diary, thus wrote of the ceremony: "Of all the melancholy and mournful duties I have ever been called upon to perform, this has been the saddest. A death in a small party like ours, and under the present circumstances, is a most depressing event, and is keenly felt by all. During the service all were more or less affected, and many to tears."

A rude cross was fashioned out of a boat's oar and a spare sledge batten, and it was placed at the head of the grave with the following inscription: "Beneath this cross lie buried the remains of GEORGE PORTER, R.M.A., who died June 8, 1876. 'Thy will be done!'"

Anxiously they waited during the rest of the day, wondering as to the fate of Lieutenant Parr, and half expecting to see him stagger back to the camp, his splendid courage overcome by the difficulties of his journey. But he did not return, and the men crept into their sleeping-bags under the tents scarcely daring to think what the morrow would bring forth.

One or two of the sick men were visibly worse since the death of Porter, and the next day might mean the end of their lives. If their gallant rescuer managed to make his way at all, he could not reach the ship in time for relief to come for another day or two, and no man dared to speak of what might occur in that interval.

The shouts of men's voices while they were yet within their sleeping-bags on the morning of June 9 were so unexpected, that, at first, those who heard them blamed their ears for playing them false. But it was no deception. Lieutenant Parr, with a magnificent heroism that deserves honour even among the many brave deeds which British sailors have performed, struggled on after leaving the camp without a stop until he came in sight of the *Alert*. Directly he was discovered he told of his comrades waiting helpless and sick. Relief parties were formed on the moment, and two officers, Lieutenants May and Moss, with a dog-team sledge laden with lime juice and restoratives, started away while the other sledges were loading.

They pressed on without a halt until they saw the tents of the camp, when they shouted, as no one was to be seen about the place. They were up to the tents before any one came out, and when they did it was as though new life had been given to each man. The lime juice, of which they were in such dire want—for by an oversight it had been omitted from the stores—was at once served round, giving fresh energy to those who were still able to move about, and greatly relieving those who were incapacitated.

On the arrival of the remainder of the relief party, the invalids were all removed to the ship and attended to, every man recovering, under medical treatment, before the *Alert* weighed anchor for the South. This was done in August, when she rejoined the *Discovery*, the officers of which had also done splendid service in surveying the interior of Grinnel Land, behind Discovery Bay, and also along the northern coast of Greenland.

While the *Discovery* was lying in her winter quarters a successful attempt was made by Lieutenant Beaumont, accompanied by Dr.

Coppinger and sixteen men, dragging two sledges, to communicate with the *Alert*. They started away on April 6, while the cold was still nearly 70° below zero, a temperature which made sleeping almost impossible, as they had constantly to exercise to maintain their bodily heat. In spite of these drawbacks, however, the *Alert* was reached.

The intention was to continue the journey across Robeson Channel over to Greenland, and to explore as much of the northern coast as was possible. Reinforced by Lieutenant Rawson and five men, the party started on April 20, from the *Alert*, with four sledges and provisions for 56 days. As they approached the Greenland coast the ice was very rough and tumbled about in irregular blocks, with heavy snow lying ankle deep. Arriving at Polaris Bay, a dépôt of stores was made and a detachment left in charge, the journey then being resumed; but the ice became more and more difficult, and the snow deeper. The strength of the whole party was taxed to the utmost to make any progress, and at the end of each day's work every one was wearied out with fatigue. Falls

were frequent, owing to the unevenness of the ice, and one man, Hand, was particularly unfortunate in this respect. By the time that Cape Stanton was reached he was suffering considerably from stiffness, which was at first attributed to his tumbles; but when pain began to be manifest in his legs and gums, the truth of the matter became evident. He was affected with scurvy.

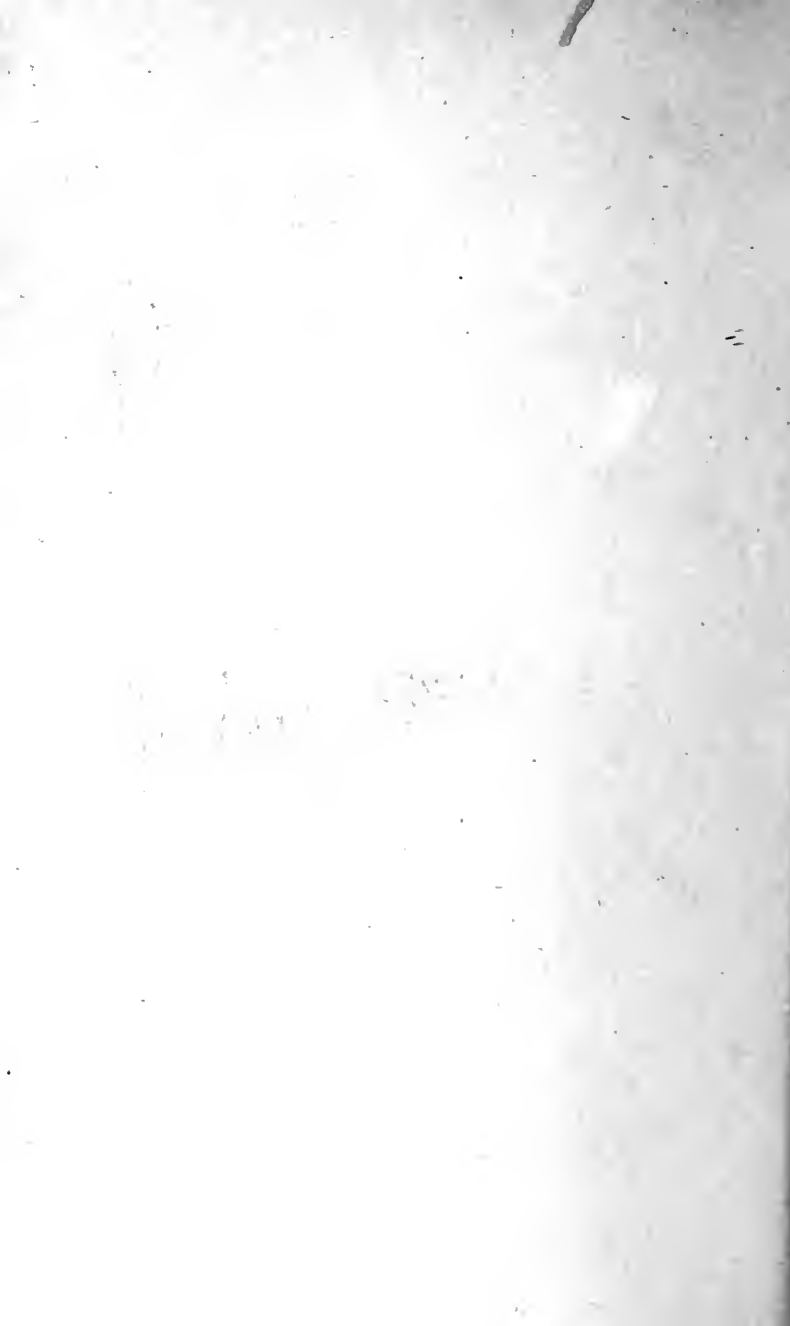
This discovery was made on May 10, and the leader at once decided to send him back to Polaris Bay with Lieutenant Rawson and six men. The remainder of the men were asked to say whether they fancied they were affected; but all maintained the contrary, and asked to be allowed to continue the journey.

With six men Lieutenant Beaumont continued the route to the North, while Lieutenant Rawson returned to the depôt at Polaris Bay. On his way other members of his party developed scurvy, and their plight was so distressful that for some days before they reached the depôt, which they did on June 3, Lieutenant Rawson and one man alone were able to drag the sledge, the former being so severely afflicted with



Nansen

NANSEN AND JOHANSEN
START ON THEIR DASH



snow-blindness that he had to work for days with his eyes covered by a bandage. Hand, the first man affected, died as the sledge came within sight of the camp.

In the meantime Lieutenant Beaumont pushed on, his difficulties increasing with every mile. The snow became deeper as they advanced, until they sank at every step over their knees. Describing it, the leader said: "The hard crust on the top would only just *not* bear you, while the depth prevented you from pushing forward through it, each leg sinking to about three inches above the knee, and the effort of lifting them so high as to extricate them from the deep footholes soon began to tell upon the men." The sun shining on the snow seemed to be unusually warm, while the exertion made them intensely thirsty, besides so exhausting them that they had to stop every fifty yards to rest and recover their breath. They were crossing a wide bay at the time, striving to reach the other shore, which did not seem to be more than a mile away. But the clearness of the atmosphere was very deceiving as to distance, for they struggled on

for two days and still the coast only seemed to be a mile distant.

In order to make the way easier the men were marched four abreast, the sledge being left until a road was forced through the snow. For five miles the march was continued, and at the end of that distance the coast did not appear a yard nearer.

Sending the men back to the sledge with orders to rest till he rejoined them, Lieutenant Beaumont and one man went forward. But after some hours of trying effort they did not reach the coast, and were compelled to turn back, having been able to observe that the shore was composed of great towering cliffs with the snow piled up at the base. When they returned to the spot where the sledge had been left, they were thoroughly worn out by their exertions. As comfortable an encampment as could be arranged was made, and for two days the party remained resting.

Symptoms of scurvy were making themselves apparent among the men under the fatigue brought on by their excessive toil; but no word of complaint was spoken, every man

being ready and willing to do his duty. In the retreat of Commander Markham and his men from the "farthest North," a splendid example of British heroism and discipline was given. The story of Lieutenant Beaumont's party furnishes another.

The growing sickness of some of the men and the decreasing store of provisions brought home to the leader the necessity of a return being made. At the end of the two days' rest the sledge was turned in the direction of Polaris Bay and the men retraced their steps, finding the travelling somewhat easier now that they could use the road they had made by their previous passage through the snow. But the leader wanted to be able to form some idea of the coast line beyond where they had been turned back, and, time after time, he made ineffectual efforts to reach the shore and scale some high hill. At last he was able, after tremendous exertion, in reaching the summit of Dragon Point, an altitude of 3,700 feet. From here he was able to command an extensive view, the land extending away as far as he could see into a cape which he named Britannia Cape.

On June 13 they arrived at Repulse Bay depôt, and the state of the health of the men is best shown by the record Lieutenant Beaumont left, and which was recovered by members of the Greely expedition six years later. The record, dated June 13, 1876, reads: "Three of us have returned from the camp half a mile south to fetch the remainder of the provisions. Dobing has failed altogether this morning; Jones is much worse, and cannot last more than two or three days; Craig is nearly helpless; therefore we cannot hope to reach Polaris Bay without assistance. Two men cannot do it, so we will go as far as we can, and live as long as we can. God help us.—L. A. BEAUMONT."

The discovery of this record, and the simple manly faith and courage it betokened, was destined to be of great service to another band of English-speaking explorers in later years, and their opinion of it, and the admiration they felt for the man who wrote it, will be told in the account of the Greely expedition.

Meanwhile that Lieutenant Beaumont was making his heroic effort to save the men of his party, Lieutenant Rawson was growing anxious

as to their position. As they did not appear, he, on June 22, in company with one of the Eskimo and a dog-team sledge, started along the coast in search of them. Three days later they were met—on the last march they could have made, for they were at the end of their strength. Lieutenant Beaumont, in his account, says: "On the evening of the 24th, we started for our last journey with the sledge; for, finding that Jones and Gray were scarcely able to pull, I had determined on reaching the shore to pitch the tent for the sick men and walk over to Polaris Bay by myself, and see if there was any one there to help us. If not, to come back and send Jones and Gray, who could still walk, to the depôt, while I remained with the sick and got them on as best I could."

When Lieutenant Rawson met them, he found the intrepid Beaumont straining at the sledge, with the two sick men helping him as much as they could, while on the sledge lay the four helpless invalids, made as comfortable as circumstances would permit. No time was lost in removing them to Polaris Bay, where, under medical attendance, all recovered save one. The

journey back to the *Discovery* was successfully carried out after a rest, and Lieutenant Beaumont had the pleasure of knowing that his expedition had added considerably to the geography of Northern Greenland.

Soon after their return, the *Alert* joined the *Discovery*, and, towards the end of August, both vessels weighed anchor and started for England, where they arrived on November 2, 1876, having been absent for seventeen months, during which time they had carried the British flag to the "farthest North," and had brought within the knowledge of man localities previously unknown. They had not reached the Pole, and had come to the conclusion, after their experiences, that to do so was beyond the range of human possibility.

CHAPTER VI

The Greely Expedition

The Scheme of the Expedition—Fort Conger—Arctic Wolves—Atmospheric Marvels—A Terrific Storm—Influence of the Sun—Lieutenant Lockwood's Expedition—The Second Winter—Preparations for Departure—They Leave Fort Conger—A Remarkable Ice Passage—They Fail to Make Cape Sabine—A New Camp—Rations Running Short—Fruitless Efforts to Reach Food Depôts—Starvation and Death—A Bitter Blow—The Arrival of the *Thetis*.

IN 1881 the Government of the United States determined to send out another expedition towards the North Pole, and a vote of \$25,000 having been passed by Congress for the purpose, Lieutenant Adolphus Washington Greely was appointed to the command. Lieutenant Greely, who was an officer in the 5th Cavalry regiment, had as his companions three officers and twenty-one men selected from the United States army.

The scheme of the expedition was to proceed by steamer as far north as Lady Franklin Bay, where they were to form a depôt on Grinnel Land, and, using it as a base, push forward by means of dog-sledges over the ice, and by steam launch over the open water, as far North as it was possible to get.

The steamer *Proteus*, a vessel of 467 tons and 110 horse power, was chartered by the explorers to convey them from New York to Lady Frank-

lin Bay. They sailed in June and proceeded to Upernavik, in Greenland, where they took on board their sledge dogs and two Eskimo to look after them, Jens and Frederick. On July 1 they resumed their journey in fairly open water. The season was especially mild, and they were able to make excellent travelling through the unimpeded water. On the way they stopped at Cary Islands and examined the records left there by Sir George Nares in 1875, and which had been once before examined by Sir Allen Young, in 1876. The sea was full of white whales, narwhales, and grampus. The latter has the reputation of being a voracious feeder, one authority stating that a dead grampus was found, having been choked by a seal he had attempted to swallow, although, when he was opened, his stomach was found to contain no fewer than thirteen porpoises and fourteen seals.

On August 4 the *Proteus*, for the first time during the voyage, was stopped by the ice, Being built specially for navigating the ice-covered seas, she was very powerful in the bows which were further embellished by a strong

iron prow. Thus she was able to force her way through ice which would have been impassable to a lighter craft. Her method, when she was faced by moderately thin ice which was yet thick enough to stop her ordinary progress, was to steam astern for a couple of hundred yards and then rush full speed at the ice. The strength of the iron prow and the force of her powerful engines drove her into the floe, but the operation was one that required great care. As she approached the floe, the crew, running from one side of the deck to the other, caused her to roll as she struck, the engines being reversed directly her prow penetrated the ice, so as to prevent her wedging herself in. This exciting operation was repeated several times when she met the floe in Lady Franklin Bay, and only by its means was she able to ram her way through, and reach the destination of the expedition.

A site for landing was selected on the north of Discovery Bay (where the *Discovery* wintered in 1876), and on August 11, 1881, Greely landed, and proceeded to the cairn which had been erected by the Nares expedition. Here he

found two copper cases labelled "Reports and General Information." The date upon them, and which showed when they were deposited, was August 11, 1876, exactly five years before to a day.

Proceeding a little distance from the spot where the *Discovery* winter quarters had been erected, a suitable situation was marked out for "Fort Conger," which was to form the base of the operations pending the time when the relief ship was due to take the expedition home again.

During the next week every one was kept very busy erecting the frame house which was to form their home during the next two years, unloading stores and other articles belonging to the expedition, arranging the heavy casks and cases of imperishable provisions near the house, and exploring and hunting over the surrounding country. The hunting was a necessary part of the business, for winter would soon be in and no fresh meat would then be obtainable. So a few of the best shots spent their time in the valleys round the bay, where a large number of musk oxen and other game frequented.

On August 18, all the stores, etc., belonging



SHOOTING MUSK OXEN IN
THE ARCTIC REGIONS.



to the party were landed from the *Proteus*, and that vessel, being discharged, got up steam and bade farewell. She was, however, prevented from getting out of sight until August 26, the ice setting in rapidly and strongly. The men of the party worked with such a will that they had their house built, the recording instruments erected in proper localities, the provisions stacked, and everything in order sufficiently early to permit them to carry out some surveys while the weather was yet mild enough for sledge travelling. Attention was also given to obtaining as much game as possible, and by the time that the temperature was cold enough to warrant their going into winter quarters and giving up outside work at any distance from Fort Conger, they had obtained for their larder twenty-six musk oxen and ten ducks, besides hare, seal, and ptarmigan, in all 6,000 lbs. of fresh meat for their own food, and an equal amount for the dogs.

In the middle of September they were visited by a large pack of wolves. These were first discovered prowling over the ice on the harbour in front of the encampment, and, fearing the

loss of some of the dogs, as well as provisions, a hunting party went out to shoot them. But the wolves were too cunning, keeping out of range until the men were tired out. They were frequently fired at, but none fell, although, as subsequent events proved, this might not have been due to bad marksmanship. The Arctic wolves, as was discovered later, are perhaps the most tenacious of life of any of the Northern animals.

One was seen, a day or so later, within a hundred yards of the house. It was immediately fired at, and rolled over with a bullet through the body; but before the marksman could get over to where it lay, the apparently dead creature scrambled to its feet and made off, bleeding profusely. The trail left by the blood was distinctly visible on the snow, although the wolf itself, being covered with pure white fur, was quite invisible. For over an hour the trail was followed, and when at last the dead body was found, it lay practically bloodless, having struggled on while there was a drop of blood in its veins. In view of the difficulty of shooting them, the men resolved to

poison them. But here, again, the wolves were not to be caught.

The first time that poisoned meat was put out it was left untouched. Some good meat was added, and at once disappeared, though the pieces containing poison were still left alone. The poisoned baits were then taken up, and only good meat put down, the wolves always taking it until, their confidence being aroused, a few poisoned baits were mixed with the other. The experiment succeeded so well that when the baits were next visited four wolves and one fox were found dead. The others, evidently alarmed, made off and did not again return.

As October passed the phenomena of the solar halo and aurora began to make their appearance. The observation of atmospheric conditions being one of the objects of the expedition, great attention was paid to these displays, and some excellent descriptions were given of them. One which occurred on October 21 and lasted five hours is thus described by the leader of the expedition :—

“It consisted of two concentric rings, distant 23° and 46° respectively from the sun, which

were marked by five mock suns where the rainbow tints were most clearly displayed. This was followed at evening by the first aurora display, in the form of a delicate convoluted ribbon of colourless light. On the 24th there was another halo. This was a double one, there being two perfect concentric half-circles, distant 23° and 46° from the sun, each half-circle having a contact arch of magnificent clearness. No fewer than six mock suns appeared, two on either hand and two above the real sun, with prismatic colours in each case as vivid, and clear as in any rainbow, the heavens being filled with a great glow and wealth of colour."

After the sun had gone and the twilight of the long winter night had set in, the sky was vivid, at one time, with a wide sweep of red, yellow and blue, marked by bars of white light running up and down. Later, when the moon had risen, further atmospheric marvels were recorded.

On one occasion the moon was surrounded by two circles, 22° and 46° above the horizon. Both were topped by contact arches, and within them

six mock moons were present, two on each side of the true moon, and two directly above it, all of which were brilliant with the colours of the rainbow. Spires of light proceeded from the moon vertically, reaching downwards to the horizon, and upwards to the outer circle. In addition to these, a brilliant streak of white clear light extended from the moon horizontally on both sides completely round the horizon, and now and again a faint mock moon of rainbow colours appeared high over the whole, and another very low under it, making eight mock moons all visible at the same moment round the real one. The moon was also seen surrounded by a corona of four distinct bands of coloured light, the first white, the second yellow, the third blue, and the outer one red.

But all the experiences of the winter were not so gratifying as these aerial displays. As soon as the snow lay thick on the ground the men banked it up against the sides of the house until it was completely covered in up to the eaves. It then froze on the outside, and the house was practically covered in with ice. This

was of very great value in preventing the loss of heat from the interior, and, later on, in saving the house from being blown away in a terrific hurricane which occurred. But even with the protection of the frozen snow outside, and the constant burning of fires and lamps inside, the temperature of the house was, in mid-winter, so cold that any water accidentally spilled on the floor turned to ice, and unless the ink-bottle was kept near a burning lamp, the ink froze at once. Outside everything except alcohol was frozen solid, the mercury being hard in the thermometers, and even the rum getting thick as syrup. The lime-juice, of which a daily ration was taken, was frozen into tablets, and so quickly did any liquid turn to ice that some of the sledge-dog puppies were frozen to the ground through running on to the place where the warm contents of the slush-bucket were thrown.

Early in January, the barometer falling very rapidly warned them that a severe storm was approaching. Suddenly a fierce gust of wind swept over the house, followed by a steady blow, the apparatus for registering the velocity

of the wind showing it to be at the rate of eighteen miles an hour. The barometer continuing to fall, a man was sent out to take an observation from an outside station, but the force of the wind had increased so much that he could not face it alone, and two men had to go. The air was soon filled with driving snow, and the rate of the wind reached fifty miles an hour. It was now only possible for six men, supporting one another, to stand against the dense volumes of snow which the wind carried, and, as the velocity was recorded at sixty-five miles an hour, fears were entertained as to the safety of the house. But still the wind increased until, in a series of terrific gusts and squalls, the house rocked and trembled as the register marked ninety miles an hour. It was a moment of intense anxiety for the members of the party, for the destruction of the house at that period of the year would almost inevitably have meant their own destruction. Fortunately it was securely built and so well protected by the banked-up snow, that it withstood the fury of the hurricane.

This furious outburst was the final effort

of the winter, for within a few days of its occurrence the sky began to show signs of the approaching sunrise; and with the advent of light the spirits of the party, necessarily depressed by the prolonged darkness, rapidly resumed their normal contentment. When at last enough natural light existed for the men to see one another, they were amused at the appearance of their faces. The prolonged absence of sunlight had entirely robbed their cheeks of any semblance of ruddiness, and instead their complexions were of a ghastly yellowy green tint, as though each one was suffering from a severe attack of sea-sickness. The murky light of the lamps had not revealed the change, and the more vainglorious were considerably disturbed at their bleached cheeks, fearful lest the pallor should always remain, like the whiteness of the bears' fur. But it passed off under the influence of the sunshine.

Nor was this the only change produced by the sun. The effect of it upon the land was so pronounced as almost to seem marvellous. Directly spring set in sledge parties were despatched in all directions to survey and spy

out the country. One was led by Greely himself, and its course lay inland along the route marked out for a certain distance by one of the *Discovery* parties in 1876.

Passing beyond the limits of the previous exploration, a large river, entirely frozen over, was discovered, and along its course the party made their way. The ice was wonderfully smooth in comparison with that on the salt water, and excellent travelling was made, the men and sledges frequently being able to slide for a hundred yards at a time. At the head of the river they found an enormous glacier completely blocking up the valley, extending five miles from side to side, and 175 feet high. This was late in April, and everywhere the ground was covered with ice and snow, desolate and motionless, with no sign of life, and no sound, save the faint gurgle of running water which was occasionally noticed under the ice on the river.

Early in July, little more than two months later, this valley was again visited, but so great was the change in its appearance that the men might have doubted its identity with

the cold, desolate place they had previously seen, but for the existence of the sparkling glacier. The river now flowed along, glittering in the bright sunlight, between banks covered with flowering plants. Bright yellow poppies gleamed all over the verdure-clad slopes, with sturdy heath blooms, daisies, and other blossoms mingling, and over them were fitting innumerable white and yellow butterflies. Humble bees droned, and flies, including the familiar daddy-long-legs, were everywhere present, as well as their arch-enemies, the spiders. Ptarmigan, their white plumage somewhat speckled with dark feathers, plovers, and birds of smaller size, were seen on the wing; and over the verdant sides of the valley and along the banks of the river, large herds of musk oxen were browsing, with calves following the cows. The sky was brilliantly blue, and almost free from clouds; and in the face of so much that was beautiful and full of life, it was difficult to realize that a few weeks later the valley would again be desolate and deserted, owing once more the supremacy of the icy grip of the frost and snow.

Exploring the valley carefully, some very interesting discoveries were made of ancient Eskimo dwellings. A number of relics were obtained, some of them being implements which were quite unintelligible to the Greenland Eskimos who were with the party. The remains of the houses showed that they had originally been substantial structures, built of slate, and must have been permanent residences rather than mere summer quarters.

While the interior of the country was being explored, other sledge parties set out over the frozen sea. One of these journeyed North, and reached the spot where the *Alert* had passed the winter in 1875. It was intended to continue the journey over the ice towards the Pole similarly to the sledge party Commander Markham and Lieutenant Parr had led, but the ice was too rough for them. They passed beyond Cape Sheridan and set out towards the North, but turned back, finding "nothing but an inextricable mass of huge bergs, and enormous hummocks piled up in a similar manner as when journeyed over by Commander Markham." The scientific instruments they had

with them had to be abandoned at one place, owing to a sudden opening of the ice, but they approximated their highest latitude as being $82^{\circ} 56'$ N. From the summit of a high berg, they fancied they saw open water to the North, and then they returned to the land, finding cliffs which rose 2,000 feet straight out of the water, and along the base of which the ice lay piled in tremendous heaps.

Another party, under Lieutenant Lockwood, the second in command of the expedition, set out in the early spring across the frozen straits to Greenland. This was over a similar route to that taken by Lieutenant Beaumont of the *Discovery*; but the later expedition, not having to struggle against the affliction of scurvy which had proved so disastrous to the *Discovery* party, was able to reach a far higher latitude.

The party consisted of Lieutenant Lockwood, Sergeant Brainard, and the Eskimo Frederick, and they succeeded in reaching the most northerly point that had yet been discovered, not only on the coast of Greenland, but also in the Arctic regions. The latitude recorded was $83^{\circ} 23' 8''$ N., and thus the honour, which for

three hundred years had been the boast of the British, the honour of having attained the nearest point to the North Pole reached by man, was wrested from the British Lion by its cousin, the American Eagle.

Although only three men were in the party which reached this high latitude, the party which set out from Fort Conger comprised thirteen men and five sledges. The experience gained by the members of the Nares expedition was of the utmost value to subsequent explorers, and the members of the Greely expedition always made acknowledgment of this fact, coupled with very complimentary references to the skill, the courage, and the devotion of those whom they termed "our kin from over the sea." Thus it was that in laying the plans for this northerly trip they provided for a series of food depôts and relief parties all along the route. Several of the former had been placed in position during the early spring, and there is no doubt that this arrangement contributed very materially to the success of the enterprise. The last depôt was formed when nearly in sight of Cape Britannia, and

from thence the small party of three pushed forward. The dog team saved them an enormous amount of labour by dragging the sledge for them, but even then they found the travelling exceedingly difficult. Their sleeping-bags were damp, and consequently they were always compelled to rest in great discomfort. As they approached Cape Britannia the route became more difficult, and their best march was sixteen miles in ten hours. Beyond the cape an island was reached, to which the name of the leader, Lieutenant Lockwood, was given, and the extreme point of which furnished their "farthest North." The coast line still showed beyond, and to the most distant point the name of Cape Washington was given. Then the small band turned back, having succeeded in reaching a few miles nearer the Pole than Commander Markham, whose journey, however, was over the frozen sea, whereas the other was along the Greenland coast.

The following spring, to anticipate the course of the narrative, another effort was made to reach Cape Washington, but so rapid a thaw set in that the party had to turn back before



AN EASY WAY DOWN
SNOW SLOPES . . .



reaching as far as Lockwood Island. They, however, secured all the relics of Lieutenant Beaumont's party, including a British ensign, which were faithfully preserved throughout the terrible privations the expedition was fated to undergo. These relics were subsequently forwarded by the United States Government to the British and are now in the Greenwich Museum with the Franklin mementoes, treasured not only as emblems of British courage but also of American good-will. Of the memorable record left by Lieutenant Beaumont at Repulse Bay, its perusal by the members of the Greely expedition is thus described by the leader :—

“This brilliant record of British courage, discipline, devotion to duty and endurance, must ever affect deeply all who may read its full details. To the men of the Lady Franklin Bay Expedition, who justly appreciated the terrible contingencies of the situation, and who bore similar dangers, this story, as told by the gallant Beaumont, was full of deep and assuring interest.”

The American festival of “Decoration Day”

occurred while the party were at Polaris Bay, the place where the two *Discovery* men who died were buried. The festival is one for the commemoration of American heroes, and on that day throughout the United States all the graves of their heroes are decorated. Here on the bleak, barren Greenland coast they remembered the festival, and kept it by taking the Stars and Stripes from the sledge poles and draping them over the rough monuments erected above the remains of the two British sailors.

The second winter that was passed at Fort Conger was monotonous and gloomy. The experience of the previous period of darkness was of great service, inasmuch as the comfort of the expedition was improved in many ways. The piled-up snow which had formed so useful a protection the year before was carried right over the roof, considerably increasing the warmth and snugness of the interior. But there was one fact which weighed somewhat heavily on the minds of every one. A relief steamer was expected before the winter set in, and it had not arrived. There was still an

abundant supply of food, and no alarm was felt on that score; but the novelty of the surroundings having worn off, the prospect of the long, weary stretch of darkness had a depressing influence. It, however, passed without any untoward incident, and with the return of the sun field work was resumed. The most notable route was that of Lieutenant Lockwood and his companion on the "farthest North" trip, Sergeant Brainard, who in one month covered 437 miles of the hitherto unexplored interior parts of Grinnel Land, discovering numerous lakes and glaciers. One of the latter was of particular interest by reason of the vari-coloured face it presented. The top layer, which overhung slightly, was of dull opaque white, that immediately beneath it ranging in colour from pale green to a clear blue, while the next and thickest layer was of a rich chocolate colour, due to the soil which had been frozen in with the water. The lowest streak was similar to the topmost, dull opaque white.

In their absence the remainder of the explorers were busily engaged in establishing

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food depôts to the south, along the route they would be compelled to take in the event of a retreat being necessary. The non-arrival of the relief steamer prior to the winter made it a matter of some speculation whether it would arrive in the spring, and a plan was arranged for a retreat to the south being carried out in the boats the expedition possessed. These consisted of a steam launch 27 feet long, an ice-boat which had been abandoned by Lieutenant Beaumont in 1876, and two whale-boats. A depôt of forty days' full rations was placed at Cape Baird and another of twenty days' rations at Cape Collinson, as soon as the ice was open enough to allow the launch to proceed. Then when it had returned and all the survey parties were in, a decision was come to that if no steamer arrived by July 31 the retreat would be commenced.

July passed and August arrived, but there were no signs of the approach of any relief steamer, and, on August 9, with the boats loaded with the records of the work done and as much food as could be stored in them, the party bade farewell to Fort Conger and started

on their memorable journey. The lateness of the season made navigation extremely difficult for such small craft, and they were frequently impeded by ice which would have offered no obstacle to a big steamer. They had scarcely got out of sight of the house where they had passed the two long dark winters before they were so beset with loose ice that progress was almost impossible. Then new ice formed round them, and they were hard and fast. The fact that they only carried a limited supply of fuel made their position more serious, and when, on August 18, a temporary breaking in the floes enabled them to move forward, there was a general rejoicing. But it was soon checked on discovering that they were forced inside of a huge mass of ice over fifty feet high and extending right up to the solid floe. It was impossible to turn back and fight through the drifting ice behind them, and the only hope of escape seemed to be to steam on in case there might be a channel through the floe ahead.

As they passed along the great wall of ice they were amazed at seeing a crevice run into

it. Arriving opposite to it, they found that it was a cleavage which went right through the mass, and they turned into it. The enormous berg had grounded and had split asunder, leaving a passage a hundred yards long and barely twelve feet wide, the sides of which were sheer fifty feet high on either hand. Such a formation was unique, even in the Arctic regions, and the steaming through it was an adventure without a parallel.

It led them into fairly open water, and they were able to push on into Rawlings Bay before they were again beset. This time it was not the new ice but the closing in of the floes that caught them. So quickly did the masses close in that the boats were caught and "nipped" before anything could be done to save them. The men at once scrambled out on to the ice, striving to lift the lighter boats on to the floe and unloading the provisions from the others as fast as they could, lest the crack should open again and everything be lost. The nip, however, had not been so severe as to endanger the floating capacity of the boats, but the ice had closed too firmly to

allow of any hopes of their being able to force their way through. A strong wind from the north, in spite of the snow and cold it would have brought, would have been welcome; but the days were provokingly calm, and the ice only moved south at its ordinary slow rate. By August 26 they had travelled 300 miles from Fort Conger and were within fifty miles of Cape Sabine, a headland where there was a large supply of stores left by Sir George Nares in 1876. If they were able to reach there before the winter night set in, there was some chance of their existing through the dreary period which, it was now evident, they were doomed to pass in that locality. And yet the spirits of the party were as bright as though a steamer were within sight of them. One of them, in his diary, wrote: "Adversity in any form would fail, I think, to dampen the spirits of the men. Our situation is desperate. Any moment the ice may crumble beneath our feet and the sea swallow up the entire party. Still, while exercising on the ice this evening, the men danced and sang as merrily as they would have done in their own homes. They

are irrepressible in the face of all this uncertainty and perhaps starvation."

The end of the month found them still beset, and with barely fifty days' rations. The opinion was now divided as to the best course to adopt, whether to remain in the boats and wait on the off-chance of their drifting near Cape Sabine, or to take to the sledges and push on over the rough ice to the shore. They had been drifting for thirty miles, and only twenty now lay between them and the cape with its store of provisions. The leader was averse to leaving the boats at once, and the days dragged on until, on September 10, it was evident that the sledge journey would have to be undertaken if the shore was to be reached and a camp formed before the darkness set in.

Unfortunately when they did abandon the boats the weather changed, and a cold wind with driving snow came to make their struggle still more difficult. They tried at first to drag two of the boats with them, but one soon had to be abandoned and the party struggled on. Their sleeping-bags froze and filled with drifting snow so that they were able to obtain

but little rest when they halted, and when they were moving they were always cold and miserable. Until September 28 they were struggling over the rough, difficult ice, and then their trials were further increased. They were nearing the shore, and the force of the tide, backed up by the pressure of the ice grinding along before the wind, caused the floe to crack and break up. Only by the most persistent energy and exertion were they able to get their stores and themselves on shore, though still some distance from Cape Sabine.

They had now travelled 500 miles since they left Fort Conger, and not only were the men considerably exhausted by their recent struggle, but winter was setting in very rapidly with constant and heavy storms. It was therefore decided to form a camp where they were, while the snow had not frozen too hard for them to get some stones for a shelter. They had been compelled, on their journey over the ice, to abandon everything in the way of covering save their sleeping-bags, and unless they built a hut of some description the rigour of the winter would inevitably be fatal to all.

Such stones as could be found were collected and built into a low wall forming a square of about sixteen feet. The stones were difficult to obtain, and the wall could only be made three feet high. An opening was left in one of the sides of the square and a passage way constructed so that the entrance to the interior did not open directly on to the frozen exterior. Across the top of the walls, the boat they had dragged with them over the ice was laid keel uppermost, the oars being laid under it so as to maintain it in position, the open spaces between the sides of the boat and the walls being covered with such canvas as they had. Around the stone walls and over the top, snow was piled, and their living house was complete. It sheltered them from the wind and from the extreme bitterness of the cold, but beyond that nothing could be claimed for it. Every one had to enter it on hands and knees, and, once inside, no one could stand up, while the taller men of the party were only able to sit up in the middle of the hut where the boat made the roof slightly higher.

The men arranged their sleeping-bags against

the walls with the feet towards the middle of the floor, and when they had crept in through the narrow entrance, they groped their way into the bags. Then, half lying and half sitting, with their shoulders against the stones behind them, they made themselves as comfortable as they could during the long period of darkness. They divided themselves into messes for the purpose of feeding, and two cooks prepared the food, an operation which was always difficult and unpleasant. It had, of necessity, to be carried on inside the hut, and when the two men were kneeling in a cramped-up position over the make-shift for a stove in the middle of the floor, there was no room for any one else to stretch his legs. Every one had to huddle up as closely as possible, and as all the smoke from the stove had to find its way out of the hut the best way it could, the atmosphere during cooking time was far from refreshing. The heat from the stove also thawed the ground immediately under it and the snow on the canvas over it, with the result that the cooking of every meal meant a thorough wetting as well as a choking for the cooks.

As soon as the hut was finished, a small party pushed on towards Cape Sabine in order to locate the provisions stored there. On October 9 they returned with the news that despatches had been found, stating the *Proteus* had foundered in the ice on July 24 just off the cape, and that the crew and relief party had started to the south so as to meet the second relief steamer *Yantic*, or a Swedish steamer which was known to be in the locality, and send on help to the Greely expedition.

The little party also discovered some provisions and the whale-boat, previously abandoned on the ice, which had drifted ashore near the cape. This was subsequently used as firewood when all other fuel was exhausted.

The news of the disaster to the *Proteus* was a serious blow to the expedition, as it meant that no help would be able to reach them until the following spring at the earliest, and, in the meantime, they would be compelled to exist as best they could upon their meagre stock of provisions. The relief party who had visited the cape on their way from the wreck of the *Proteus* had very considerably reduced

the stores which the Greely party counted on finding, and when they obtained the remnants which were left, part of the bread was found to be a mass of green slimy mildew. The men had now been on reduced rations for many days, and so hungry were the members of the band sent to convey the stores from Cape Sabine to the hut that when the green mouldy stuff was thrown out by the officer in charge, the men flung themselves on to it and devoured it despite all he could do to persuade them from such a course.

The question of the strictest economy in the management of the food supplies was now a matter of life or death, and very seriously the leaders debated it. On October 26 the sun sank beneath the horizon, and in the ensuing darkness, which lasted for 110 days, there would be no chance of obtaining any game. A few blue foxes had been killed since the camp was formed, and half the number were set aside for subsequent consumption, those consumed at once being devoured to the bones, every part being put into the stew.

Meagre as the rations were, it was necessary

to reduce them still further if the food was to last until the spring. By a further reduction it was calculated that the party could exist until March 1, when the available supplies would amount to ten days' rations. But no relief could possibly reach them until a couple of months later than that, and how were they to live after March 10, when the last crumb of their supplies had been consumed?

There was only one course open for them, and that was explained by the leader. On November 1 the allowance for each man would be fourteen ounces, given out every twenty-four hours, and on March 1, as soon as there was light, they would take their remaining ten days' supply and set out across the frozen straits in the forlorn hope of reaching an outlying camp of Etah Eskimo on the Greenland coast.

The terrible prospect of such a scheme to men situated as they were can scarcely be imagined. For over a month they had already been slowly starving on an amount of food for daily consumption which an ordinary man could comfortably eat at one meal, and now

that amount was to be decreased to less than a pound of food a day and in a climate where the cold was so intense that water could not be kept from freezing inside the hut excepting it was over the stove. For four months they would have to face that rigid diet, suffering the pangs of starvation constantly, almost entirely in the dark, and always huddled up in the sleeping-bags against the walls of their low-roofed hut. And yet they accepted the scheme without a murmur.

Seldom have men shown themselves so absolutely courageous, for at the best it was merely slow starvation so as to be able to make an almost hopeless dash for freedom and food in four months' time. The suffering during those four months was terrible. Men, as soon as they got hold of their day's rations, were tempted to devour them at once, and so still for a time the ceaseless gnawing of their hunger; but to do so meant that in an hour's time the pain would be back again with no means of staying it until twenty-three hours had passed. Calmly and bravely they faced the ordeal, dividing their scanty store into

regular meals, and when, by an accident, one of them upset his can, spilling his few mouthfuls of tea on the ground, the others contributed from their share so that he should not go entirely without. Nothing could exceed the touching fidelity which characterized their bearings, one to the other, during this period of unexampled suffering.

At Cape Isabella, a stock of 140 lbs. of meat was known to have been left by Sir George Nares, and a party of four set out in the hopes of securing it. For a week before they started they were allowed an extra ration in order to strengthen them for the trial of a journey in the dark over rough ice and with the temperature at 34° below freezing. The extra ration consisted of two ounces a day.

For five days they battled their way through the darkness against a heavy wind laden with snow, and at last found the place where the food was. Piling it on their sledge, they turned back home again, and for fourteen hours laboured with it, only consuming a little warm tea during that time, for they had no means of heating more. One of the four was

badly bitten by the frost, and was soon so stricken that he could not even stagger along. A piercing wind was blowing, and to save their comrade's life, the others abandoned the sledge and tried to support him. Soon two of them became exhausted, and the remaining one, Sergeant Rice, pushed on alone to the camp in order to bring help. For sixteen hours he was fighting his way over the twenty-five miles that lay between him and the hut, and when he arrived there, his lips were too frozen for him to be able to speak at once.

Weary and weak as the whole party was, eight of the strongest at once started off in rescue. When they picked the other three up, they found them lying under the sleeping-bag with the sick man between them, and the bag frozen so hard over them that it had to be cut open before they could be got out. Then they resumed their way to the camp, which they reached after forty-four hours' absence, in which time they had covered forty miles.

The frost-bitten man, Elison, was almost dead, his face, feet, and hands being absolutely

frozen, but so determined were they all to survive as long as possible that he was tended with all the care they could command. He was kept alive in spite of his sufferings, which, during the first week after his rescue, were so severe that he daily called on his comrades to end his misery.

Meanwhile the memory of the abandoned sledge laden with meat was constantly in the minds of the starving men, whose hunger was now so great that in the darkness after the lamp was put out—economy compelled them to use it only for cooking—men crept to the stove and devoured any rancid fat left in the lamp. But still discipline held them together, and they made no mention of their sufferings to one another. The success of the journey across the ice on March 1 was what they looked forward to, and with the arrival of that date they believed their sufferings would be over.

On January 18 the first one of the party to die passed away, really of starvation, although the men, to keep the ugly word away from their minds, accepted the doctor's

statement that it was of an effusion of water at the heart that the man had died. His end made a deep impression on the gallant little band, all the same, and by the beginning of February several more men were in a critical condition, including Lieutenant Lockwood, who refused to accept an extra ration of two ounces a day from the diminished stores.

Sergeant Rice, accompanied by the Eskimo Jens, made a plucky effort to reach Littleton Island, where an outlying camp of Eskimo might be found; but Jens could not stand the journey, and, five days after starting, they returned. Every one was now impressed with the necessity of husbanding their energies for the great effort to be made on the first day of March, and as February slowly passed away, the emaciated creatures grew enthusiastic as they sought to cheer one another up by detailing the tremendous feasts they would have when they returned to civilization. At length the first of March dawned, and the brave hearts, which had kept up so long against starvation and despair, shrank before the terrible blow they received. The ice had broken, and open

water rolled where they had planned to cross on the ice. Nothing was said, for the courage of the men was only equalled by their consideration for one another, but the effect of the great disappointment sank deep into the minds of many.

The food remaining was eked out through the month with the aid of some blue foxes and a ptarmigan, which were eaten to the bones, and April found them with only a few days even of the starvation rations remaining. Several of the men were so weak that they could barely turn over in their sleeping-bags. The Eskimo Frederick was found dead in his bag, and another of the little party followed the next day. Then Sergeants Rice and Fredericks insisted on making an effort to reach the meat abandoned when Elison was frost-bitten. It is difficult to understand why the effort had not been made before, but many errors of judgment are conspicuous after a campaign which are not so apparent in the moment of struggle.

Now that it was made it failed, through the cold freezing wind penetrating the starved bodies of the two men. Rice, who through-

out the terrible ordeal of their captivity had never spared himself, was the first to feel it. A strong wind was blowing, bringing down heavy snow squalls. Suddenly Rice began to talk wildly and then staggered. Fredericks grasped him by the arm and tried to keep him up, but the cold and starvation had too tight a hold upon their victim. He vainly endeavoured to pull himself together, but only for a moment; then he sank down on the snow, babbling about the feast he was going to enjoy.

His comrade tried to restore him by giving him some of the stimulants they had with them, and did not hesitate to strip off his own fur coat to lay upon the other, sitting the while, holding his hands, and exposed to all the biting fury of the Arctic wind, in his shirt sleeves. But everything was useless; Rice was too worn out and too weak to fight further, and died as he faintly talked of the food he fancied he was eating.

The shock to Fredericks was almost overwhelming, for he was miles away from the camp, chilled to the bone, and with only a little

coffee and spirits of ammonia to revive his own drooping vitality. Yet he would not leave his dead comrade until he had reverently laid him in a shallow resting-place in the snow, though it almost cost him his life to pay this last tribute.

When he at last managed to reach the camp with his sad tidings he was almost gone, and the news he brought plunged every one into the lowest depths of sorrow, for Rice had always been one of the bravest and best of the party. Those who were able to do so, attended to Fredericks and revived him.

To those who were weakest the end of Rice was a fatal blow, and the next day or so saw three or four pass away, one of whom was the intrepid Lockwood. A very few more days and all would have gone but for a gleam of good fortune. A young bear was killed, and the 400 pounds of meat obtained from it was the salvation of the survivors.

Several seals were seen in the straits and a few walrus, and all who could still handle a gun were daily striving to obtain fresh supplies for the larder. Eskimo Jens, who hunted

assiduously, succeeded in killing a small seal; but in a chase after another his kayak was injured in the ice and he was drowned.

After his death only misfortune attended the hunting, and, failing to replenish their stock of game, they were reduced to such a terrible plight that they had only the thick skin of the seal to subsist on. Even this fare was carefully divided and measured out, so that life might be maintained as long as possible in case a relief vessel came. But one day it was found that some one was stealing.

All the party assembled, and as no one would admit the theft, it was decided that the thief should be shot if discovered. One man, being suspected, was watched. He was caught and executed.

A fortnight later, the last few square inches of the seal's skin was gone, and the men, now little more than living skeletons, lay in their sleeping-bags looking at one another with hollow eyes, wondering, perhaps, who would be the last to go, when a steamer's whistle sounded over the straits.

At first they dared not trust their ears. It

must have been a gull crying, or a bear, they said, and the only man with strength enough to crawl crept out to see. The others lay where they were, straining their ears to catch again the sound which had so moved them, but the minutes passed on in silence. The man who had gone out did not come back, and their hopes fell. No one spoke, for it was too plain they had been deceived, and a profound silence reigned. Then they heard a great shouting, and before their minds could understand how it was done, they were surrounded by men of their own race, who were administering restoratives as quickly as they dared.

The *Thetis*, commanded by Captain Schley, of the United States Navy, had reached them, and so, on June 23, 1884, the survivors of the Greely expedition were saved.

CHAPTER VII

Peary in Greenland

The Greenland Question—Departure of the *Kite*—Peary Breaks his Leg—A Camp Made—Habits of the Eskimo—A Brush with Walrus—"Caching" Food—An Arctic Christmas Feast—Peary Starts for the Great Ice-Cap—A Snow Sahara—The Ice-Cap Crossed—A Marvellous Discovery—Sails on Sledges—A Safe Return.

THE disaster and suffering which characterized the termination of the Greely and *Polaris* expeditions did not tend to recommend Arctic exploration as a national enterprise to the Government of the United States. A vast amount of highly valuable information had been obtained, not only by these expeditions, but also by the expedition sent out by the British Government under the command of Sir George Nares. And, in addition to the information, a further knowledge had been gained, the knowledge that the same spirit of indomitable pluck, the same tireless energy, and the same loyalty and devotion to duty dominated both branches of the great English-speaking race. The magnificent heroism displayed by the explorers from the *Alert* and *Discovery* found a parallel in the later experiences and exploits of the American

expeditions, and both British and American Governments felt that, for a time at least, they were justified in resting on the laurels their gallant sons had won.

But if the Governments were satisfied, the restless spirit of the race could not remain quiet while secrets still remained in the keeping of the frozen North. The Pole was still untouched, and, more than that, there were secrets to be wrested from localities not quite so remote.

The discoveries along the north coast of Greenland opened up the very interesting question whether the land did not extend right up to the Pole itself. As far as any one had penetrated to the north of the coast, land was still to be seen farther on; and it was an open question whether this great ice-covered country was an island, with its northern shores swept by the Polar ice floes, or whether it extended almost to the dimensions of a continent in the Polar region.

The problem appealed strongly to two explorers whose names, by reason of their exploits during recent years, have become familiar. They are Nansen and Peary. The former, by

reason of his dash for the Pole, during which he surpassed all other records of the "farthest North," has dwarfed his Greenland performances; the latter, by his journey of 1,300 miles over the ice-crowned interior of Greenland, decided the insular character of the country. It is that journey which forms the subject of this article.

Lieutenant Robert E. Peary, an officer in the engineering department of the United States Navy, failing to obtain Government support for his scheme of an overland journey to the northern coast of Greenland, was supported by the Philadelphia Academy of National Science. The expedition was necessarily small, but that did not affect its utility. It was, moreover, unique, by the inclusion of Lieutenant Peary's wife as one of its members; and the account which she has given of her sojourn in high latitudes is one of the most interesting of books on the Arctic regions.

The party left New York on June 6, 1891, on board the steamer *Kite*, for Whale Sound, on the north-west coast of Greenland. The voyage was satisfactory in every way until

June 24, when an unfortunate accident befell the leader.

The *Kite* had encountered some ice which was heavy enough to check her progress, and, to get through it, the captain had to ram his ship. This necessitated a constant change from going ahead to going astern, and, as there was a good deal of loose ice floating about, the rudder frequently came into collision with it when the vessel was backing. Lieutenant Peary, who was on deck during one of these manœuvres, went over to the wheelhouse to see how the rudder was bearing the strain. As he stood behind the wheelhouse, the rudder struck a heavy piece of ice and was forcibly jerked over, the tiller, as it swung, catching Lieutenant Peary by the leg and pinning him against the wall of the house. There was no escape from the position, and the pressure of the tiller gradually increased until the bone of the leg snapped.

The doctor, who formed one of the party, immediately set the limb; but the sufferer refused to return home, and when, a few days later, the *Kite* reached McCormick Bay, he was carried ashore strapped to a plank.

The material for a comfortably-sized house was part of the outfit of the expedition, and this was in course of erection the day that Lieutenant Peary was landed. For the accommodation of himself and wife, a tent was put up behind the half-completed house, and, as a high wind arose, the remainder of the party returned on board the *Kite*.

As the hours passed away the wind became stronger. The tent swayed to and fro, and Mrs. Peary, as she sat beside her invalid and sleeping husband, realized what it was to be lonely and helpless. She and her husband were the only people on shore for miles; her husband was unable to move, and she was without even a revolver with which to defend herself. What, she asked herself, would be the result if a bear came into the tent? She could not make the people on board the *Kite* hear, and she was without a weapon. Throughout the stay in the North, Mrs. Peary proved herself not only to be a woman of strong nerve and self-reliance, but also an excellent shot with either gun, rifle, or revolver. It was, however, as much as she could stand when

her anxious ears caught the sound of heavy breathing outside the tent.

For a time she sat still, fearing to disturb her husband, until the continuance of the sound compelled her to look out. A school of white whales were playing close inshore, and it was the noise of their blowing, softened by the wind, which had so disturbed her. But so self-possessed was she over it that her husband did not know till long afterwards the anxiety she had experienced during the first night she spent on the Greenland shore.

The following day rapid progress was made with the house, and some of the party stayed on shore for the night, so that there was always some one within call of the invalid's tent until the house was completed and he was removed into it. By that time the *Kite* had started home again, and the little party of seven were left to make all their arrangements for the winter.

They had determined to rely entirely upon their own exertions for the supply of meat for the winter and also to obtain their fur clothing on the spot, killing the animals

necessary for the material and engaging some of the local Eskimo to make up the suits. Deer would give both meat and fur, and as there was every prospect of the neighbourhood affording them in plenty, as soon as the house was up and the stores packed, the majority started away in search of game.

The spot where they were landed, and where they had erected their camp, was on a verdure-covered slope lying between the sea and the high range of bluff hills which towered about 1,000 feet over them. In the spring the ground was covered with grass and flowers; the bay in front was full of seal, walrus, whales, and other marine inhabitants, and along the hills behind experience showed that game was present in abundance. The Etah Eskimo, the most northerly people in existence, lived their quaint, out-of-the-world lives along the shores of the bay and neighbouring inlets, and, as soon as the camp was settled, they were kept busily employed in the making of fur garments, proving themselves docile and peaceful. It was often difficult for the members of the expedition to

realize that the site of their camp, with the abundance of food to be had, was only from fifty to eighty miles from the spots where the castaways of the *Polaris* suffered so acutely and the members of the Greely expedition slowly starved, many of them to death. For more than a year the little party of seven lived in good health, without a suggestion of scurvy making its appearance and with only one fatality, which, moreover, was accidental.

The first hunting expedition was in search of deer, and everybody took part in it except the leader, who was still crippled by his injured leg and confined to his room, and his wife. For two or three days the hunters were away, for they were fortunate in discovering a herd of deer which they followed until all were bagged. Then, with as many as they could convey, leaving the others to be fetched later, they set out for the camp. Their approach was duly signalled, and upon hearing that they were returning laden, Lieutenant Peary, for the first time, hobbled out of the house on crutches. As they came up he rested on one leg and his crutches,

while he photographed them and their trophies, after which the double occasion was celebrated by a banquet in which venison played an important part.

The deer skins were very important additions to the stock of material from which the winter clothing was to be made, but other varieties were needed, especially of the marine animals, as well as some native tailors to fashion them into coats, hoods, mittens, and all the other articles of Arctic wear. A boat party was therefore despatched along the shores of Inglefield Gulf, to spy out the localities where walrus was to be found, and to induce some of the natives of a village, seen from the *Kite*, to come over to the camp and sew the new garments.

The party was successful in both instances, for a number of walrus were seen and an Eskimo family came back by the boat. The "huskies" consisted of a man, his wife, and two little children, and they moved with all their belongings. They were little people, under five feet in height and almost as broad as they were long, clad in fur jumpers and

short breeches with sealskin boots reaching over their knees. The costume of both adults was very similar, the only practical difference being in the tunic or jumper, that of the woman having the hood longer and deeper for the accommodation of her infant. They had broad, good-natured faces, not especially handsome nor intelligent in appearance, but distinctly dirty. In fact, the use of water, other than for drinking, did not appear to be known to the primitive people, and it was very much a question whether they had ever tried the experiment of a wash. Once Mrs. Peary was tempted to give one of the little ones a bath, and she records how intensely amazed it was at being put into the water, although it was more than two years old. Surviving the shock, however, it manifested its pleasure by lustily kicking and splashing. Perhaps it is now enjoying a well-merited honour amongst its own people as the only one of the tribe who ever passed through the extraordinary ordeal of soap and water.

In consequence of their innocence of water as a cleansing medium, the "huskies," as the

Peary party affectionately termed them, have two very distinguishing characteristics not entirely pleasing to more civilized people. They carry around with them a distinctly impressive aroma, and also thriving colonies of what are politely termed parasites.

In the matter of clothes they have their wardrobes on their backs. Fur garments do not wear out very rapidly, and when a "husky" is full grown, the suit of clothes made in honour of the event remains in constant wear except for two occasions. If the man kills a bear, he has a costume made of the skin and discards the ordinary seal-skin suit for it. If he does not kill a bear, he wears the sealskin suit until it no longer keeps him warm, when he gets another. In their snow houses during the winter and storms, if the temperature is too warm for them in their thick clothing, they take the clothing off; being a primitive people, their manners are simple, even if unrefined.

The first arrivals at the Peary camp were, however, very useful people. There being no trees in this far northern region, and wood,

consequently, being one of their most valued treasures, they were for some time unable to comprehend how so much timber had been acquired to build the house. When they saw a fire made of refuse bits of wood in the stove, they were still more amazed. Never before had they seen so much fire all at once, and the man, growing curious, kept on feeling the stove to see what the effect would be. When it was hot enough to burn his hand, he developed a wholesome respect for it, and preferred to regard the, to him, uncanny object from the distance.

The problem of how the sewing was to be done was rather a difficult one to the white people for a time. To allow the furs to be taken into the Eskimo tent was to invite the introduction of an insect population which it would be impossible to get rid of later. On the other hand, to allow the huskies to enter the house too frequently was equally dangerous from the sanitary point of view. A compromise was effected, by the Eskimo woman doing the sewing near the door of the house with some one always keeping an

eye on her. Later on, when it was found that little danger existed from the spread of insects if reasonable care were taken, the workers sat inside the house. They were fairly deft in handling the needle, and the suits they made for the party were all excellent and serviceable. These were made on the native pattern, and the experience of Lieutenant Peary and his comrade Astrup in their journey over the great ice-cap proved that the native pattern was the best.

When the woman was set to work, a boat expedition in search of walrus was organized, with the Eskimo as guide, Lieutenant Peary and his wife also going. They had not proceeded very many miles up Inglefield Gulf before a light breeze when they saw, on a floating piece of ice, a dozen or so of the animals huddled together apparently asleep. Sailing gently towards them, every one with a rifle ready, a sudden puff of wind sent the boat ahead quicker and farther than was intended, and it struck the ice. The walrus, never having seen a sailing boat before, looked round at it without paying any more attention than if

it had been another piece of ice. But the sight of so many valuable creatures within reach of his harpoon was too much for the little Eskimo, and he buried the weapon into the nearest.

At once the attitude of the walrus changed. The wounded member of the tribe tried to escape, bellowing in its pain, and the rest slid off the ice into the water and surrounded the boat. Others from neighbouring ice patches charged rapidly on to the scene, and the situation of the boat and its occupants was dangerous in the extreme. The poor Eskimo, his face showing the terror he felt, crouched down in the boat, evidently expecting to be annihilated by the furious animals that surged round. As they came up to the boat, they tried to get their great powerful tusks over the gunwales, and, had one succeeded in doing so, there would have been slight hopes of any one escaping. Had the boat been capsized, no one could possibly have survived, and to keep the angry crowd off was no easy matter.

All around they swarmed, and not less than

250 were estimated to be attacking them. Lieutenant Peary, with his injured leg, sat in the stern of the boat, firing at them, and the other white men also kept up a fusillade, Mrs. Peary, again giving evidence of her strong nerve and courage, sitting beside her husband and loading the weapons as soon as they were emptied. The walrus came on in bunches to the attack, and immediately they were fired at, all those nearest to the boat leaped out of the water, and then plunged out of sight. There was always the danger of one of the huge creatures rising under the boat, and so capsizing it; but the occupants had no time to think of this. Directly one batch jumped and disappeared, another batch hastened forward to greet the volley of bullets in the same way as the others, and be in turn succeeded by another batch!

The boat was meanwhile gradually approaching the shore, and as the water became more shallow the walrus exhibited less desire to come to close quarters, until, at last, the adventurers found that they had beaten off the last of the swarm. The main body had retreated far up

the gulf, only a few remaining near. Several of those which had been shot, however, were floating on the surface of the water, and it was decided to go back and secure them, even at the risk of another attack. Already some of them were sinking, and many must have gone down while the fight was in progress. There was a necessity for haste if any of the slain were to be secured, and with rifles loaded and ready for a fresh attack, the boat was headed towards the floating carcasses.

The operation of securing them was performed without any interruption from the survivors, and a run was then made for the shore, where the Eskimo said a lot of seal-skins were "cached." This is the term used in the Arctic regions to denote the local method of storing food or possessions. A space is hollowed out in the ground, which, even in the summer time, is frozen hard a few feet below the surface. The articles to be stored having been placed in the space, it is covered over with stones, and the "cache" is completed. Throughout the winter the contents become frozen into a solid mass, which, protected by the stones or other

covering, does not thaw out during the short summer, and so remains in a good state of preservation for an almost indefinite period.

Occasionally the "cache" fails to preserve the articles of food entirely in that state which by the European is termed "fresh"; but as they rarely have recourse to "cached" provisions, it does not matter very much. The Eskimo, who constantly preserves his winter supplies in this manner, has, happily for himself, easier notions about the state and quality of his food. This was brought home to the party very forcibly. They had visited several "caches," and obtained enough seal-skin for their purpose, and, having enjoyed some refreshment, were considering their return. The Eskimo, Ikwa, then told them that, as all the flesh at the camp was recently killed, he and his family did not like it. There was, he said, a fine seal cached in the neighbourhood, which would form a delicious store for him and his family, and if the leader allowed him to move it to the boat, and convey it to the encampment, he would be prepared to yield some of it to the members of the party for their own special

enjoyment. The seal was a beauty, he said, and just in the very pink of condition. The necessary permission having been given, Ikwa hurried away for his treasure.

Shortly after, the members of the party noticed a strange penetrating odour in the air which they at first attributed to the flayed walrus. It steadily increased, until they were unable to tolerate it, and started out to seek the cause. As they emerged from under the shelter of the jutting rock where they had been resting, they descried the little Eskimo staggering towards them under the burden of a seal almost as large as himself. The creature had been "cached" about two years, and was in such a state that gentles fell from it at every step the man took, and, as Mrs. Peary recorded in her diary, both the sight and the scent of it overpowered the white people. But to Ikwa it was just in good condition for eating, and he was especially indignant when he was made to relinquish it. His clothes, however, would not part with the odour, and for many days the members of the expedition had reason to remember that Eskimo like their game high.

As the time passed, and winter approached, every one was kept busy preparing for the long dark night, and for the journey over the ice-cap which was to be undertaken directly spring began. Several families of Eskimo were now residing near the encampment, the women mostly engaged in making winter fur garments for the members of the expedition, and the men in hunting. As dogs were required for the sledging expedition, constant bartering went on between the Eskimo and the white men, and the latter undertook occasional journeys to localities where other members of the tribe were encamped.

A great deal of very interesting information was thus derived about the natives, who are, as has been said, the most northerly living people in the world. Mrs. Peary, as the first white woman they had ever seen, was a particular object of attention. As their custom is for men and women to dress very much alike, they could not quite understand Mrs. Peary's costume, and when the first arrivals saw her and Lieutenant Peary together, they looked from one to the other, and ultimately had

to ask which of the two was the white woman.

The tribe did not number 300 in all; they held no communication with the Eskimo farther south, and, except for the occasional visit of a sealer or a whaler, knew nothing of the outer world. None had ever seen a tree growing, nor had they ever penetrated over the ridge of land which lay back from the coast, and over which glimpses were caught of the great ice-cap. The latter, they said, was where the Eskimo went when they died, and if any man attempted to go so far the spirits would get hold of him and keep him there. They consequently warned Lieutenant Peary against venturing. There was no seal up there; no bear; no deer; only ice and snow and spirits, so what reason had a man for going?

Their belongings were extremely simple. A kayak, a sledge, one or two dogs, a tent made of walrus-hide or seal-skin, some weapons, and a stone lamp, comprised, with the clothes they wore, their property. Wood was the most valuable article they knew, because they could use it for so many purposes, and had so little

of it. The possession of knives and needles was greatly desired, but scissors did not appeal to them, since what they could not cut with a knife they could bite with their close even teeth. Money had neither a suggestion nor a use with them; trade, if carried out at all, being merely the bartering of one article for another.

The animals they liked best were dogs and seals; the former being their beast of burden and constant companion, the latter the provider of food, raiment, covering, and light. Every seal killed belonged to the man who killed it, but the rules of the tribe required that all larger animals should be shared among the members in the neighbourhood; the skin of a bear, however, remaining in the possession of the man who secured it. But so unsophisticated and easy-going are the contented little people that individual property scarcely exists with them; every one is ready and willing to share what he has with another if need be. The articles borrowed, however, are always returned, or made good if broken or lost. No one can either read or write; the boys are taught how to hunt, how to manage the kayak

and sledge, and how to make and use the weapons of the chase, while the girls are taught how to sew the fur garments, and keep the stone lamp burning with blubber and moss, so as to prepare the drinking water and the frizzled seal flesh they eat. For the rest, their chief desire is to live as happily as they can, and this, according to those who have been amongst them, they manage to do merrily and well.

During the visits paid to the different encampments by Lieutenant Peary and his wife, about a score of dogs were obtained, a number which would be sufficient to carry out the work of the ensuing spring. They were usually obtained in exchange for needles and knives, but the purpose for which they were needed always formed a subject of wonder to the unambitious "huskies."

By the time that a return was made to the house—Redcliff, as the explorers named it—the season was well advanced towards winter. The roof and sides were all covered with walrus hide, and moss, gathered in the early autumn, was stuffed into any crevice through which the cold wind might find a way. The drifting snow

soon piled up round the walls and over the roof, and the extra covering added to the warmth and comfort of those within. Fur clothing was now worn generally, and the little party, keeping in good health and spirits, managed to pass the gloomy period of winter without anything to mar their contentment.

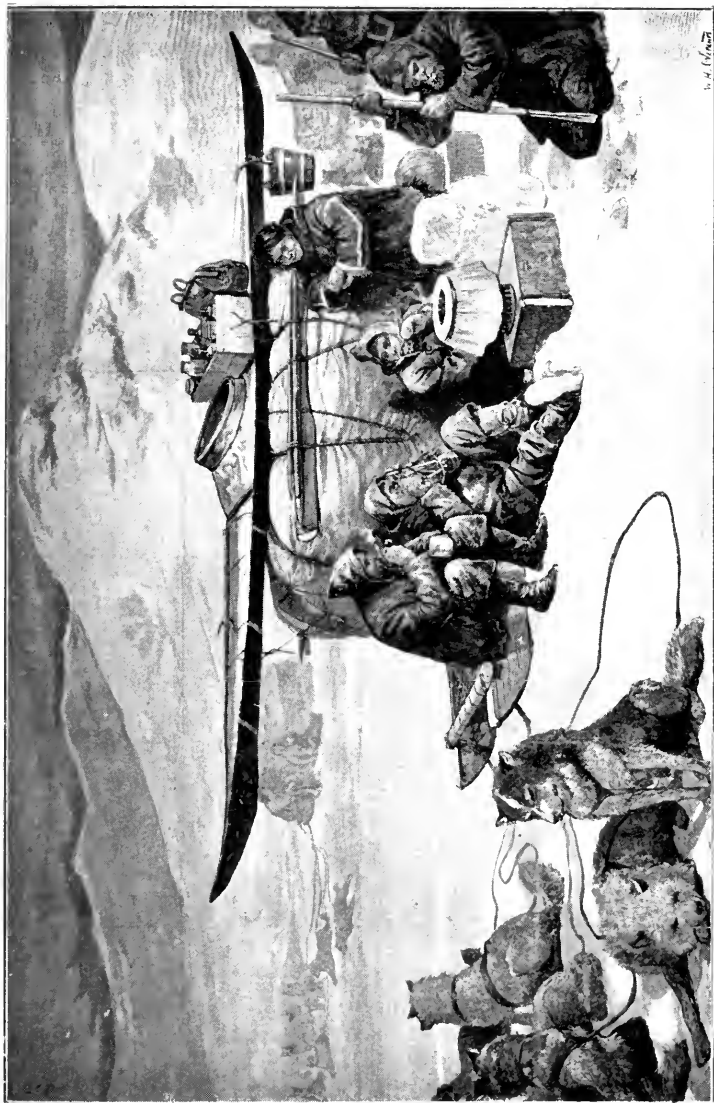
Christmas they celebrated in proper form by having a sumptuous dinner, the menu of which, preserved by Mrs. Peary, is worthy of being quoted, as showing what can be done in a place where shops are unknown and darkness reigns at midday. The feast consisted of salmon, rabbit pie and green peas, venison with cranberry sauce, corn and tomatoes, plum-pudding and brandy sauce, apricot pie, pears, sweets, nuts, raisins, and coffee: a very creditable repast to be put on the table of an Arctic residence.

When every one had satisfied the demands of appetite, the table was cleared, and then re-spread for the benefit of the "huskies," who were bidden to partake of Christmas fare. A somewhat different assortment was prepared for the visitors, the dishes consisting of milk punch, venison stew, cranberry tart, biscuits, sweets,

raisins, and coffee. This was certainly a variation to their ordinary food of seal or walrus flesh and water, and they showed their appreciation of it by leaving no crumbs and sticking to their seats until, at half-past ten, they were gently told that it was time they went home. Then they left, but the next day they came again, and were perhaps not the first who, having enjoyed a hearty Christmas dinner, felt disposed to complain that Christmas can only come once a year.

At the first approach of spring the dogs were given plenty of exercise in the sledges, and by the middle of April all was ready for the great journey over the ice-cap. Lieutenant Peary had quite recovered from the injury to his leg, and was impatient to be off. The plan of operations was for himself and a young Norwegian, named Astrup, to push on with one sledge over the unknown interior, but for the first part of the journey a supporting party and sledge accompanied them.

April 30 saw them start from the house towards the bluff range which ran along the coast. The two sledges, each with a team of



THE EXPLORERS' TAKK
A NOONDAY REST



ten dogs, were laden with supplies and scientific instruments. Mrs. Peary, who was staying behind at the house, watched them slowly go out of sight, the Eskimo women consoling her with the opinion that none of the party would ever come back. The return of the supporting sledge a few weeks later was rather a blow to the prophecy, but they tried to make up for the first mistake by asserting their confidence that the other sledge was doomed.

The two parties kept together until the coastal range was surmounted, and the beginning of the ice-cap was reached. Here the sledge which was to do the great journey was laden with a full load, and the two explorers started forward, Lieutenant Peary leading the way with a staff to which was attached a silk banner—the Stars and Stripes—worked by Mrs. Peary.

The first of the ice-cap was a stretch of some fifteen miles of ice, formed into enormous dome-shaped masses. They toiled up one side but travelled easily down the other, and so on, up and down, until they had attained an altitude of nearly 9,000 feet above the sea level, when

they found that they were on a vast expanse of snow. The white unbroken surface stretched away as far as the eye could reach, unbroken by a ridge or rise, everywhere flat, white and immense. This was the great ice-cap, the frozen covering of the interior of Greenland, the unknown region where no man had yet set foot.

But it was a mistake to term it an ice-cap. They found it to be rather a desert, a Sahara with dry drifting snow instead of the dry burning sand. And, like Sahara, it had its days of storm, when the snow whirled in clouds just as the sand rises before the scorching blast of the simoom. Very wonderful was the first experience of this Greenland dust-storm. The sky overhead was filled with dull grey clouds, heavy and opaque, and the gloom spread all around, so that whichever way one looked there was the same unpenetrable veil of grey gloomy haze. The snow lost its dazzling whiteness and took instead the tint of the gloom of the surrounding atmosphere. Then the wind came, at first in fitful gusts but later growing into a steady blow, the opening squalls lifting the dry surface snow and whirling it up in the air.

The steady breeze caught it and carried it along in a constantly moving stream some two feet deep, and it was then that the effect of the storm was most pronounced. The drifting particles of snow made a curious rustling noise as they moved, and as they whirled round the travellers' legs the feet were hidden beneath the dense moving veil. As a result, it was as though one were walking on nothing and going nowhere, for the grey gloom all around made one unconscious of either direction or space, and the moving snow prevented one seeing the feet or realizing that there was anything solid under them.

The steady hum of the drifting snow, together with its movement, made the brain dizzy, and the two explorers generally found it necessary to form a camp when such a storm came on, the snow soon piling up against their shelter tent and effectually protecting them from the wind. Then, when the breeze had died away and the snow ceased moving, they were able to dig out their sledge and proceed.

A distinct contrast to these stormy days was given by the period of clear sunshine. Then the sky, innocent of a cloud, was a wonderful blue

vault overhead, while the snow-covered plateau stretched away on all sides until it was lost in the distance of the horizon. The wonderfully clear air enabled the explorers to see a great distance ahead. At the end of the second day's march after reaching this great snow desert, they found that the surface was gradually sloping north and south. They were on the dividing ridge and, as they passed over on to the downward slope, their progress was naturally at a more rapid rate. A storm, such as has been described, accompanied by falling snow, overtook them, and for three days they had to stay in their shelter. When at length the weather moderated and they were able to get out again they discovered, before resuming the journey, that the dogs meanwhile had eaten six pounds of cranberry jam and the foot off one of the sleeping-bags—a fairly good example of a dog's appetite during a snow-storm.

On May 31 in magnificently clear weather they looked out upon a scene on which no white man had ever yet gazed. In his description of the journey the leader wrote: "We looked down into the basin of the Petermann Glacier, the

greatest amphitheatre of snow and rugged ice that human eye has ever seen." Away beyond it, a range of black mountains towered in dome-shaped hills, and they made their camp with the expectation of being able to see more of the distant range at the end of another march. But by the time they were able to resume their march a thick fog had come into the air, and for three days they could only see the snow at their feet. They directed their course entirely by compass, but as they were unable to see long distances ahead, they were unprepared for a change in the surface. Before they could avoid it, they found themselves amongst rough ice and open crevices. They were getting on to the Sherard Osborne Glacier, and, in the misty weather they were experiencing, it was difficult to get back on to the smooth ice again. Over a fortnight was spent in getting beyond this rough ground, and at length, on the weather clearing, they found that straight ahead of them a range of hills showed along the horizon above the ice-cap. The appearance of the hills directly in their path decided them to turn their course from due east to south-east, and they were soon able to make out the line of a

deep channel running from the north-east to the south-west.

On July 1, after fifty-seven days of travel, they came to the limits of the ice-cap and stood, silent and amazed, looking down from the summit of the snow desert across a wide open plain covered with vegetation, with here and there a snow drift showing white, and with herds of musk oxen contentedly grazing over it. Such a discovery was absolutely so unexpected that at first they could scarcely believe their eyes. There was no sign of any human habitation on the land, and, for all that could be learned to the contrary, they were the first human beings who had ever trod upon that plain, on which the yellow Arctic poppies were waving in bloom and over which the drone of the humble bee sounded, though for hundreds of miles around it the accumulated snow of centuries lay frozen into the great mysterious snow-cap and its glaciers.

Having proved that they really were not dreaming, they shot a musk ox, which they used for their own and their dogs' refreshment. Then they stacked their stores and set out with re-

duced loads across the plain. They walked for four days, exploring, surveying, and examining; and on the fourth of July, the anniversary of the Declaration of Independence by the United States, they stood on the summit of a magnificent range of cliffs, 3,500 feet high, and overlooking a large bay, which, in honour of the date, they named Independence Bay.

The latitude was nearly 82° N., and Lieutenant Peary, writing of the discovery, says: "It was almost impossible for us to believe that we were standing on the northern shore of Greenland as we gazed from the summit of this precipitous cliff with the most brilliant sunshine all about us, with yellow poppies growing between the rocks around our feet and a herd of musk oxen in the valley behind us. In that valley we had also found the dandelion in bloom and had heard the heavy drone and seen the bullet-like flight of the humble bee."

For a week the two remained in this northern valley, surveying and making observations and finding it difficult to believe that a distance of 600 miles of frozen snow separated them from the nearest living people. Not a vestige of a

human habitation was found, and nothing to show that man had ever been there before. At the end of the week, with a good supply of fresh meat from the musk oxen and a collection of specimens of plants and insects packed on the sledges, the return journey was commenced. Both dogs and men were invigorated by the rest they had had, and they were able to travel homewards at the rate of thirty miles a day over the smooth surface of the ice-cap.

They carefully adhered to a recognised routine of work. When they had travelled the regulation number of hours they halted for their rest. The one whose turn it was to prepare the supper set to work to arrange what they termed their kitchen, while the other attended to the dogs, feeding them and removing them from their harness. The "kitchen" was constructed by removing snow in blocks from a space eight feet long by three feet wide by eighteen inches deep. The snow-blocks were built up along one side and half another, so as to form an angle presented towards that quarter from whence the wind was blowing. Over the top of this a canvas was stretched, forming a well-sheltered nook,

in which the spirit stove was lighted and the meal prepared. For supper they had, usually, half a pound of pemmican (a preparation of finely chopped lean meat with raisins and wheaten flour), one cup of preserved milk, tea and biscuits. The morning meal, or breakfast, consisted of pemmican, biscuits, two ounces of butter and two cups of tea, and after travelling from four to six hours, they stopped for lunch, which consisted of more pemmican and tea.

As soon as supper was ready the two enjoyed it together, and very soon afterwards they crept into their sleeping-bags, the one who was acting as cook having also to keep an eye on the dogs, in order to prevent them making attacks on the stores. To obviate this, after the first few days, the dogs were usually tethered for the night.

Occasionally, when the wind was favourable, sails were erected on the sledges and the progress was then very easy and rapid; but when the wind was from the opposite direction both dogs and men had an arduous task. The return journey was accomplished with greater facility than the outward trip, and on August 8, as they reached the top of one of the dome-like

formations near the coastal range, they saw, on the slope of the next dome, a party of men approaching. The *Kite* had meantime returned to Inglefield Gulf to take the expedition back to the United States, and several of those who had come up in her set out to meet the two explorers. By the time that the combined parties reached the shore, every one was on board the *Kite* waiting to welcome the two wanderers, whose enterprise had terminated so successfully, not the least delighted being Mrs. Peary, whose patience had been somewhat tried by the persistent way in which the "huskies" had foretold disaster to her husband. But all is well that ends well, and in his return, victorious, the long lonely hours were forgotten.

CHAPTER VIII

Nansen and the *Fram*

Nansen's Theories of Arctic Currents and Shipbuilding—His Theories Adopted—The *Fram* Built—A Start Made—The Kara Sea Reached—Good Hunting—The Ice Current Reached—Frozen In—A Raid by a Bear—Will the *Fram* Stand the Pressure?—Preparing for Calamity—A Conclusive Test—Causes of Ice Movements—Life on the *Fram*—Nansen and Johansen Leave the *Fram*—They Reach their "Farthest North"—Incidents of their Return Journey—Some Narrow Escapes—The Meeting with Jackson—Arrival of the *Fram*.

IN 1879 the *Jeannette*, an American yacht commanded by Lieutenant de Long, of the United States Navy, was beset in the ice in latitude $71^{\circ} 35' N.$ and longitude $175^{\circ} 6' E.$ So firmly was she frozen that it was found impossible to liberate her, and on June 12, 1881, she was so badly crushed in a break up of the pack that she foundered. In the meantime she had drifted with the ice to $77^{\circ} 15' N.$ latitude and $154^{\circ} 59' E.$ longitude, a point to the north of the New Siberian Islands. In 1884 articles undoubtedly belonging to members of her crew were found in floating ice off the coast of Greenland.

These facts caused a very great deal of discussion among Arctic explorers, and the general opinion expressed was that a strong and steady current evidently flowed along the

course taken first by the *Jeannette*, and secondly by the relics. To arrive at that conclusion was not very difficult; to utilise the knowledge thus gained, and profit by it, was the point, and only one man in the world was possessed of the necessary amount of insight, backed up by intellect and courage, to enable him to do so. This man was Fridtjof Nansen.

As a student of Arctic phenomena, and as one who had crossed Greenland from east to west, the existence of this current was full of suggestive possibilities. It seemed to him that if a vessel were built of sufficient strength to withstand the pressure of the winter ice, and provisioned for a sufficiently long period, there was every chance of it drifting along the entire course of the current, perhaps to within a measurable distance of the Pole, and certainly well within that region which had hitherto been unexplored. The area affected by the current would have to be entered as near the outside edge as possible, so as to participate in the full sweep of its curve, and, in order to avoid the terrible crushing pressure of the winter ice, the vessel would have to be

so built as to enable it to slip upwards from the ice, when the pressure became too severe, and rest always on the top.

On the publication of these views, they were not supported by the Arctic veterans. Some went so far as to characterize the whole scheme as being unworthy of serious consideration, while others, less overbearingly prejudiced, were aghast at the daring and audacity of the scheme. The possibility of the drift passing over the route suggested by Nansen was not gainsaid by those whose close knowledge of Arctic problems, and desire for general information, made them more tolerant than the keen opponents of the scheme—the latter, strangely enough, being men whose own exploits had not been the most successful in Polar exploration. The hero of the *Alert* sledge journey admitted the feasibility of the drift theory, but shook his head at the idea of any ship withstanding the winter pressure of the great ice packs in the far North. A ship once caught and frozen in became part of the ice itself, and when the pressure crushed masses a hundred feet thick into minute fragments

and powder, what chance would a vessel, held in such a mass, have of escaping?

But Nansen was not to be discouraged. He had the true insight of genius, that insight which gave him the confidence in his own idea and which needed something more than verbal reasons to overthrow it. His idea also recommended itself to a Norwegian ship builder, Mr. Colin Archer, who expressed his readiness to construct such a vessel as Nansen had described. The Norwegian Government also were impressed by the scheme and voted over £11,000 towards the cost of carrying it out, and other support being forthcoming, the intrepid explorer was at length able to take definite steps to prove or disprove his contention.

The building of the *Fram* was at once commenced. She was built of wood and of tremendous strength, her beams and sides being of the utmost thickness, while on the outside of the hull not a single angle was allowed to remain. Every projection was carefully rounded off and smoothed, so that there should not be as much as half an inch protruding

and capable of affording the ice a holding place. Even the keel was sacrificed to the general idea of avoiding possible holding places for the ice. The lines of the ship were necessarily different from those of the ordinary vessel. Her sides bulged outwards and the stern and stem sloped away, so that whichever way the ice exerted the pressure, the *Fram* would present a smooth surface to the ice, inclined in such a way that the tendency of the ice would be to get under it and so lift the vessel up. This did not improve her qualities as a sea boat, and the way in which she pitched, plunged, and rolled, whenever she came into a moving sea, tried the seafaring capacities of every one on board.

She was fitted with engines and a screw, and was rigged as a three-masted fore-and-aft schooner. Electric light was laid on all over her, the power being generated by a windmill when the engine was not working. Every available crevice was utilised for the storing of coals and provisions.

By the middle of June, 1893, the thirteen men who formed the expedition had succeeded

in finding a place for everything, though not without some difficulty, for the quantity of the stores which had to be packed was enormous. By a delay in delivery, just as they were congratulating themselves that everything was stowed away, a shipment of dog biscuits arrived. The ship was full already, but the biscuits had to be stored somewhere, so one of the men wriggled right up into the bows, and between the beams and the ribs he packed away the troublesome late arrivals. Everything was at last on board and stored, and on June 24, 1893, the *Fram* started on her memorable journey.

Leaving North Cape, she headed for Kharbarova, on the Northern Siberian coast, and the point where the team of Siberian sledge dogs were to be taken on board. On July 29 she dropped anchor off the quaint little settlement and found the dogs duly waiting. A ship with coal ought also to have been there, but it did not arrive up to the time that the *Fram*, having shipped the dogs, was compelled to leave. She would soon be in the Kara Sea, where a year would have to be

spent if she were caught in the ice. The season was passing rapidly, and no time could be lost if the Kara Sea were to be passed before winter set in, so the anchor was weighed and the *Fram* steamed away without her extra supply of coal.

On August 4 the Kara Sea was reached. The ice, although not heavy enough to prevent further progress, with the adverse currents caused considerable delays, and the crew utilised their enforced leisure by visiting the neighbouring land and laying in a store of fresh meat. They were successful in obtaining reindeer venison and ducks, and it was here also that the first bear was killed.

It happened on the Kjellman Islands. The *Fram* had come to anchor under their shelter, when some one raised the cry that there were reindeer on the shore. Immediately a hunting party was formed, and eight of the members rowed ashore. They separated into couples and spread out in search of the deer, which, however, were extremely shy. Two of the hunters, failing to get near the herd, decided to sit down and wait until the other members

succeeded in stalking round the deer and turning them back. Suddenly one of the two, looking round towards the shore, espied a bear coming towards them. They waited for him to come within easy range, when they fired together, striking him in the right foreleg. He turned back at once towards the shore and another bullet in one of his hind-legs did not stop him. Fearing that he might escape, one of the two ran after him and managed to put a bullet in his shoulder, which brought him to the ground. The bear staggered to his feet again, and in turning towards his assailants presented his unwounded side to them, with the result that another bullet was discharged into it, and he fell to the ground unable to move; but to make certain that he was not "foxing," yet another bullet was put into his head.

The result of the day's shooting was excellent, the bag consisting of bear, deer, seal and duck, providing plenty of fresh meat for the members of the expedition, as well as a good supply of food for the dogs. Within a few days they were able to add to the larder by

killing some walrus, a feat which was not achieved without some danger and loss.

The *Fram* had come to anchor in consequence of the ice lying rather thickly ahead, when a group of walrus was seen on a floating mass of ice. A boat was immediately lowered, and with one man armed with a harpoon in the bows, and Nansen armed with a rifle in the stern, it was cautiously rowed towards the listless walrus. They did not show any sign of life until the boat was close upon them, when the sentinel raised his head and looked towards the boat. When a number are basking, one is always on duty as a sentinel to give the alarm and warn the others of approaching danger. Directly those in the boat saw which was the sentinel, they kept a close watch upon him, remaining as still as possible when he raised his head and only urging the boat forward gently when he resumed his former lazy attitude. By very careful manœuvring they were able to creep close up to the ice. The sentinel again raised his head and looked at them, but as no one moved he seemed to be satisfied and lowered his head once more.

A sharp stroke of the oars drove the boat right on to the ice, and the man with the harpoon let drive at the group. Due, perhaps, to the movement of the boat, his aim was too high, and instead of plunging into the great body of the nearest monster, the harpoon glanced off his back and over the backs of the others. They were roused at once and turned upon the boat, bellowing loudly. Nansen fired upon the leader, a bull with tremendous tusks, and he fell over, but the others did not stop. The boat was pushed off, and at the same moment Nansen shot a second bull. The remainder of the herd plunged into the water from off the ice and swam after the boat, rising up alongside it and attempting to drag it down with their huge tusks. For a time the fight was furious, but the three men were too strong, and those of the walrus that were not killed made off under water. The two shot on the ice were secured, but those shot in the water sank before they could be reached.

As the men were getting the two from the ice into the boat, an unfortunate lurch jerked the rifle Nansen had been using overboard. It

was a favourite weapon which he was very loth to lose, and for hours efforts were made to drag it up, but without success. It was hopelessly lost, and the first brush with the walrus thus became memorable. A year or two later there was another adventure with them which was even more memorable, but many were to be slain by the explorers in the meantime, and many miles were to be covered before that adventure came to pass.

On September 10 the *Fram* had made her way through the ice-encumbered sea as far as Cape Chelyuskin, the most northerly point of Europe. There was great rejoicing on board, for the fact that such a point had been reached meant that they would be in the region of the current before winter set in, and that, when the *Fram* became frozen in, it would be in the ice affected by the drift. A week later, the course was altered, and the *Fram* was headed for the North. The ice became heavier and closer as she advanced towards the limit of the ice-floes, and as the sun was sinking nearer and nearer the horizon, the cold became more intense at every mile. As long as there was

open water ahead the energetic crew kept working their vessel so as to get her as high up as possible into the area affected by the current; but when they had passed the line which marks the limit of the floes, they soon found that further navigation was impossible. The *Fram* was soon fast in the ice and, with winter upon them, the crew made themselves and the ship as comfortable as they could.

The builder of the *Fram* had given attention not alone to the exterior of the vessel; he had also made the internal arrangements as complete as possible for the comfort of the explorers during the prolonged period they were to remain in the ice. Now that they were in the pack, they realized how well their comfort had been considered. For the matter of that, they had always found their quarters cosy, even when the *Fram* displayed her capabilities of rolling and tossing. The main cabin, in which they lived, was always warm, and the passage-ways leading from it to the outside were so skilfully arranged that those on board did not experience the distressing moisture which was so troublesome on

the *Alert* and *Discovery*. The electric light as a substitute for lamps was also an admirable innovation, for the interior of the cabin was always brightly lit without the air becoming heavy, as would have been the case with exposed lamps. A great deal of thought had also been given to ventilation, with the result that the cabins were never close.

Over the deck a large screen was erected, tent shape, and above it there was reared the windmill which drove the electric motor and generated the electricity for the lights. As the ship was to remain in the ice until it drifted out again, everything was made snug for a long stay. On the ice alongside various observatories were erected and scientific instruments placed to make complete records, and later, a row of comfortable kennels was made for the accommodation of the dogs.

These animals at first had been somewhat troublesome. They were so savage that it was necessary to keep them all tied up on deck, and during the voyage along the coast they were frequently wet and miserable, and incessantly howling. Once, rope muzzles were

made, and when each dog was fitted they were allowed loose ; but an Arctic dog requires something stronger than rope to keep its jaws closed when let loose among a lot of other Arctic dogs. The result of the experiment was not a success, except from a dog-fight point of view ; and when at length the struggling, snarling, snapping pack were separated, they were tied up again to the deck until the ship was fast in the ice.

By that time they were somewhat reconciled to each other ; and when they had been allowed to have a scamper or two, with plenty of opportunity to find out who were the kings and who were not, they settled down into a big happy family, even making common cause when a stray bear came on board later in the winter.

This happened at a time when every one was below in the cabin. Each man took it in turn to look round the deck every now and again. The man whose watch it was had not long returned to the cabin when a tremendous hubbub started among the dogs. The watch returned on deck with a lamp, but failed to

see any cause for the disturbance and attributed it to a new election of a king or some other canine ceremony. Later it broke out once more, and a further inspection was made, when it was discovered that two dogs were missing.

The man on watch, carrying his lantern, and accompanied by another member of the crew, set out over the ice, following what appeared to be a track in the snow. They had not proceeded far when they found themselves face to face with a bear. It was difficult to say which was the more surprised, the bear or the men; but as the latter had no weapon with them they decided that a return to the ship was the best course to pursue. They turned and started at a run, the man with the lantern, having heavier boots on, being the slower of the two. More than that, he was not so agile as his companion, and stumbled frequently. Once he went down full length, and when he regained his feet he was astounded to see in the dim twilight, and between himself and the ship, the form of the bear.

For a moment they stood looking at one another, the dogs at a respectful distance baying and howling. Then the bear advanced and made a snap at the man, nipping him in the thigh. The lantern was not a very heavy one, but it was all the man had with which to defend himself, and, swinging it round with all his strength, he brought it down on the bear's head. It made him let go his hold, and a few of the dogs rushing nearer to him caused him to turn towards them, thus giving the man a chance to resume his flight, which he immediately did.

By the time he was able to scramble up on to the vessel he found half of the crew tumbling out of the cabin with rifles. They ranged themselves along the side of the ship, and taking a steady aim at the bear, which could be dimly seen in the twilight, all pulled their triggers. They had forgotten, in the hurry of the moment, how well the firearms had been greased to prevent them rusting, and so the volley failed to fire a single shot. Meanwhile the dogs surrounded the bear, snarling and barking, but not going near

enough to bite or get bitten. He looked wisely round the ring and then started off at a slouching walk, just as Nansen reached the deck with his rifle. His weapon did not miss fire, and a bullet checked the bear's flight, and, some of the other guns now being effective, several more were put into him and laid him low. Subsequent search revealed the remains of the two dogs a little distance away from the *Fram*, whither they had been dragged by the bear.

The *Fram* was in $78^{\circ} 50'$ N. latitude when she was first frozen in, and the observations for the next few days were watched with a good deal of interest, as every one was anxious to know whether they were in the drift and at what rate they were travelling. A very great surprise was therefore experienced when it became known that instead of travelling, as they expected they would, in a north-westerly direction, they were going south-east. For several days they speculated whether they had misjudged the place where they would meet the north drift, and had, instead, become fast in ice which would carry

them away rather than towards their goal. It was a very unpleasant uncertainty, and when the discovery was made that the direction had changed and the vessel was slowly but surely drifting northward, there was general rejoicing on board. The ice around the *Fram* was now over thirty feet in thickness, and, as it was constantly moving in the drift, so was it also subject to the pressure which made it heave and pile itself in great rugged broken masses. There was a constant creaking and groaning in the vast pack which made it evident that the pressure had begun. Throughout the winter it would continue, getting more and more severe as the cold became more intense. Would the *Fram* justify her designer and builder under the trial?

It was a very anxious question for those on board. One authority had said she would become so securely frozen in as to be, to all intents and purposes, a part of the ice body, and that then, if the ice immediately in her vicinity began to move and work, nothing could save her from being crushed into matchwood by the enormous pressure. Well, she

was now frozen in to such a mass, and frozen so firmly that she did not budge an inch when the groaning and creaking told of the straining that was going on. The surface of the ice, as far as the explorers could see, was constantly undergoing a change, as the force of the movement pressed great blocks up in one place and ground them away in another. Jagged, rugged masses reared themselves up before the irresistible power, until they stood forty and fifty feet high. Sometimes they were forced up so high that they overbalanced and crashed down upon the lower masses with the roar and rattle of thunder. And yet the *Fram* never moved.

Was the expert opinion going to be verified? Would the ship, held by the grip of the pack, be slowly crushed into fragments directly she was caught in the line of movement? It was evidently not impossible, and precautions were taken so as to insure escape if she were to be caught and crushed. All the boats were taken out on to the ice and filled with provisions; the dogs were put in kennels also on the ice where they would be free to escape,

and every one was constantly on the alert for the first sign of the "nip."

At last it came. They were all at meals when the increased uproar of the moving ice told them that the movement was nearing the vessel. Then, for the first time, they heard the ominous sounds of creaking timber. The *Fram* was being "nipped."

Every one hurried out of the cabin to see to the boats and the dogs and the stores. When they reached the open they found that, close upon her port side, the ice was heaving and piling up into a great massive wall, while all around the noise of the fracturing and cracking of huge blocks was deafening. Slowly the wall rose in the air higher than the vessel's deck, higher than the bulwarks, and then it began steadily to glide towards her. For the moment it seemed that nothing could save her, and that the stupendous weight of the gliding wall would soon grind her solid timbers into splinters, while part of it crashed over her decks and swept spars and everything away.

Silent the members of the crew stood on

the ice on the starboard side watching and expecting every second to see the moving mass creep up to her and pulverise the bold little *Fram*, rendering them homeless and shipless. Some of the crushed ice, pushed forward in a huge roll like a frozen billow, was actually against her side and rising over the tent covering on the deck. The line of pressure had now reached exactly where she lay in the ice, and if she did not yield to it and slip from the grip that held her, she was doomed.

There was a sound of rending; a groaning crash; the *Fram* shivered till the breathless watchers thought they saw her spars tremble. Then, with a mighty wrench, she broke from the bonds that held her, and slowly rose from her nest in the ice, slipping upwards and away from the crushing force. A cheer burst from the lips of every one as she moved, for it meant not only the realization of the hopes and ideals of those concerned in her construction and the complete vindication of their faith in her, but also the guarantee that the explorers were safely and securely housed, whatever might transpire.

When the movement in the ice had subsided, it was found that the *Fram* had slipped out of harm's way in a marvellous manner. So firmly had she been frozen in that the spot from whence she had been driven contained a complete mould of her shape, every seam and mark being reproduced in the ice. This proved that the test had not only been a severe one, but conclusive as well, since the vessel had really been frozen so solid into a mass of ice as to be a part of the mass. Her escape was an overwhelming disproof of the adverse theories expressed against her, and an entire victory for Nansen. There was now no question in any one's mind as to the result of the expedition; the *Fram*, having stood one test, would stand any, and nothing could stop her emerging in due course out on to the open sea again, having drifted very near to the Pole, if not quite up to it.

With a feeling of absolute security against further pressures and movements, the crew returned on board, and once more the cabin echoed to the light-hearted laughter which had been interrupted by the "nip." The

hardy Norsemen who formed the party were as happy as they were brave, and throughout the years they were together there was nothing but good humour and merriment among them. After the preliminary experience of how the *Fram* conducted herself during a "nip," little attention was paid to the ceaseless noise and roaring set up by the moving ice. Often she was forced up out of the line of movement, but the men in her cabin sat quiet; she was able to "sail herself" without any help on that ice-locked sea.

The existence of this constant movement of the ice formed a very important discovery in Arctic knowledge. A brief explanation of the causes and the effects may make this clear, and, at the same time, show how it is that such huge mountains of ice are formed in the depth of winter when the Polar Sea was currently supposed to be frozen into one great silent moveless ice-field.

As winter sets in within the Arctic Circle, the sea which flows between the northern coasts of Europe, Asia, and America becomes covered with ice to the shores, thus forming

an enormous field of ice some two thousand miles across. This, lying on the surface of the water, often having a thickness of from thirty to fifty feet, checks, but cannot control the tides. The ebb, on one hand, leaves vast tracks of ice, previously afloat, straining on the ground, cracking so as to form enormous fissures and weakening the surface resistance. On the other hand, the flood tide is welling and pressing against the overlying barrier of ice and lifting it up until it cracks and opens, the pressure underneath lifting the separated masses on to their neighbours, which in turn resist with all their weight and grind back upon the masses beyond, until with the turn of the tide the forced-up masses gravitate down again, tumbling, crashing, bounding and rebounding one upon the other. Meanwhile the ice lowered by the ebb tide has formed a restricted crust against which the flood tide, backed up by the weight of the disturbed masses, uses its energy as a man uses his shoulder to lift a load. It is a battle between the resistance and the energy of nature, and usually energy wins along the line of the least

resistance. Here, when once a point gives way, the accumulated energy concentrates. The "point" may be an area of ice a hundred miles square and fifty feet thick, and this tremendous mass, moved by the immeasurable force of the water pressure beneath it, grinds upon its surroundings and upon itself. Huge masses are pushed up on to the surface of the pack, crushing, grinding, and splintering as they go, their weight causing the under ice to bend and crack, and so add to the confusion of the struggle. Mass meets mass in a test of strength, and, failing to climb over one another, crush together, closer and higher, until there is a diminution of the pressure from below and they surge back, shattering themselves in the commotion and yet binding themselves into a single unit strong enough to resist the next onslaught of the tidal energy.

Along the shores, where the solid compactness of beetling cliffs holds back the sweep of the tide, the ice piles itself in mountainous ridges and chains. Those of greater bulk, taking the ground, offer a resistance against which the lesser masses can only strain and grind;

but away out in the unfathomable depths of the Polar Sea there is no chance of the ice ever grounding. It is always floating, and so always susceptible to the force of wind, tide, and current. Consequently it is always moving and feeling the pressure of the water below, of the grinding strain of the drift, and of the surface disturbances brought about by the constant displacement.

Any one who has seen a pond in winter, when the ice round the edge is rotten and when a breeze blows across it, is aware how the loose sheet which covers the centre creaks and groans as it is driven against the bank. The edge is shivered into small flakes before the resistance can stop the forward movement, and then the sheet moves back against the breeze until once more the power of the wind controls it and there is a renewed straining along the bank, the previously broken flakes either being forced up on to the bank, or else under, or over, the edge of the sheet. Pieces a yard square slowly rise up on end before the pressure and, falling back, shiver into fragments which scurry across the smooth surface

of the sheet until they are arrested and become frozen to the main surface. Everywhere when the forward movement is on there is noise of creaking, groaning, and cracking, and everywhere on the ice sheet there is evidence of the force exerted.

The Arctic Ocean may be likened to such a pond, only two thousand miles across and with ice upon its surface which never melts and is always being forced one way or the other by tide, wind, or current. The rugged, piled-up fragments of one winter's fight are smoothed over somewhat later on by the heavy snows of spring and summer, or, more correctly speaking, of the period of daylight, for in this region the year is divided between the time when the sun is seen and when the sun is not seen. Along the shores of the continents which surround it, open water forms in the time of sunshine, and so there is room for the energy of the tides to escape. The currents can also, from time to time, break off great areas into floes and packs which drift away to the warmer South until they melt, leaving more room for the enormous stretch of tumbled

ruggedness behind them to swing and drift in obedience to the driving currents. It will be remembered that it was at this period of the year when the *Alert* party travelled over the ice and found it so broken and rugged that barely a mile a day was covered. It was while this sort of ice was being formed that the *Fram* and her crew rested in the North, the vessel braving every nip by slipping upwards from the pressure; the crew, confident in her capabilities, living in merry good humour in her cabin. What the confusion of the ice was like may be gathered from the opinion of those who saw it when the return of the sun enabled them to do so, and also relieved the pressure. "Imagine a stormy sea, all broken waves and flying billows, suddenly frozen solid into ice, and you have some idea, on a small scale, of the piled-up hummocks on the pack."

And so the first winter passed, the members of the expedition keeping not alone in good temper and spirits, but in good health also. There was always something doing; observations of temperature and ice movements to be taken, and records to be kept of the atmo-

spheric and astronomical phenomena, on the scientific side; and on the every-day side of life, there were meals to get ready, stores to be overhauled and distributed, dogs to be fed, and a dozen other items to attend to. One of the happiest features of this expedition was the sincere and thorough good-fellowship which existed between all the members. Some of them took turn about in the cook's galley, each one trying to produce some dish which would come as a surprise to the mess and a variety to the usual bill of fare. Then they were excellently supplied with books to read and indoor games to fill in the odd hours of leisure. A newspaper was started, and although it was somewhat deficient in foreign news, there was plenty of local intelligence to keep it going until the return of the sun. Inside the cabin there was constantly heard the hearty laugh as some jest passed round, and under the illumination of the electric light and the spell of good-fellowship, but little heed was paid to the constant noise made outside in the darkness of the Arctic night by the ever-moving ice.

When the sun's approach was heralded by a

gradually increasing twilight, every one was full of curiosity to learn how far they had drifted in the ice during the winter, and whether the current had maintained its northerly direction. There was no chance of proving that during the long hours of darkness, and when, with the appearance of the sun above the horizon, observations were taken to verify calculations already made, with the result that a great advance to the North was shown, there was general rejoicing. If the direction were maintained during the coming summer and the following winter, it was not impossible that in a year's time the *Fram* might be drifting over the very Pole itself. The flag of Norway was run up to the masthead in honour of the occasion, and at the supper table speeches were made foreshadowing the glory which would be won if the direction of the current were maintained.

With the return of sunlight a great deal had to be done in the verification of the observations taken during the winter. As the weather became warmer it was possible to penetrate through the ice so as to enable them to take

soundings as to the depth of the sea. Photographs of the ice-field were taken, so as to form companion pictures of what it was before and after the winter pressure had been exerted, and short expeditions by dog-sledge and snowshoes (*ski*, as the Norwegian form is termed) were taken. A bear track was seen one day, but as Bruin did not seem desirous of approaching the ship, Captain Sverdrup, who commanded the vessel, set to work and devised a highly ingenious trap for him. The trap was fixed up on a hummock in the vicinity, where it could be watched from the *Fram*, but where it would be quiet enough to tempt the bear. A strong-smelling bait was fastened to it, so that when the bear seized the bait he would spring the jaws of the trap and get caught round the neck. Then, when all was ready, a constant watch was kept for Bruin to appear. He came when every one was about the ship, and as he was seen slouching over the hummocks, all eyes were turned upon him. Scenting the bait, he quickened his steps and went up to the trap, holding his head high up and sniffing for the bait. Having caught sight of it, he walked

slowly round the trap until he came opposite the bait again, when he slowly rose on to his hind-legs and reached out for the morsel. Every one on board held their breath in anticipation of seeing him caught, but there was something about the concern which aroused his suspicions. Probably he had never seen such an animal before and doubted its quality, for he drew his head back, lowered himself on to all-fours, and slowly trotted away. The bear-trap was no success for killing bears, but it afforded excellent entertainment during this occasion, and formed a never-failing source of good-natured chaff afterwards.

As the short summer passed, the drift turned persistently to the west, and in view of its continuing in that direction, preparations were made for a dash by sledge to the North in the following period of sunlight. The framework of two kayaks were on board, and these were brought out and put together on the ice alongside the vessel. When they were covered with skins, they were packed on two light sledges, and experiments were made as to the amount of provisions that could be stored on the sledges

in addition. With a third sledge for stores, it was found that twenty-eight dogs would be able to drag enough food to last two men for one hundred days and the dogs thirty days, besides the kayaks, guns, ammunition, and other necessaries.

It was a critical venture to undertake, for once the sledge party left the ship and journeyed to the North, it was almost an absolute impossibility that they would be able to find the ship again. All they would be able to do was to go as far as they could and then turn back again, shaping their course to the Spitzbergen Islands, where it was anticipated the *Fram* would eventually drift. Whether they would be able to traverse the distance before their food gave out, and whether they would be able to replenish their provisions by shooting game, were two very important problems, and, in addition, there was also the question how they would be able to withstand the intense cold of the winter if compelled to spend it on the ice.

As the darkness set in again, the discussion frequently turned to the prospects of the dash

being successful. Nansen decided that he should be one of the two, selecting Lieutenant Hjalmar Johansen, of the Norwegian Navy, as his companion. Lieutenant Johansen had joined the expedition as stoker, subsequently acting as the meteorological assistant, and his choice by the leader was amply justified by results. The winter having passed without mishap, the reappearance of the sun verified the fears as to the direction of the drift. All through the winter they had travelled more to the West than the North. The dash by sledge was imperative.

On March 14, 1895, the two adventurers, with their three sledges, two kayaks and twenty-eight dogs, bade adieu to their comrades, who had come out a part of the way with them from the *Fram*, and started due north along the 100th parallel of East longitude. The *Fram* had already drifted to the 84th parallel of latitude, farther North than had yet been attained.

For the first few days travelling was slow, heavy, and laborious, the ice being excessively rough and rugged. Time after time the two

men had to haul the sledges, one after another, over the broken hummocks; but always at the end of each period of travel when they formed their camp, the Pole was nearer. On March 22 they reached $85^{\circ} 10'$ N. lat. The ice they were journeying over now was not only rough but was constantly moving, the noise being incessant as the masses ground and strained against one another. But still they pushed on, taking such rest as they could and working hard, when not in camp, from the moment they started until the moment the camp was made. On April 7 they had reached $86^{\circ} 14'$ N. lat., the highest point ever attained by man and only some two hundred miles from the Pole.

The ice was indescribably rugged and broken, necessitating the lifting of the sledges at almost every yard; the temperature averaged 40° below zero; their clothes were frozen into hard suits of mail, and their sleeping-bags were also frozen stiff. They had to sleep in the frozen bags out in the open, the temperature once being as low as 49° below zero. They had reached the "farthest North," and had learned enough to satisfy them

that up to the Pole there was nothing but a continuation of the broken, rugged ice, straining and breaking under the pressure of the drift, and they decided to turn back, making towards the nearest land for winter quarters.

This was Franz Joseph Land, lying to the south-west of where they were, and if they reached it in time to pass the winter on shore, they would be able, they believed, to resume their journey to Spitzbergen in the following summer. Arrived there, they did not anticipate any difficulty in getting home on board a Norwegian whaler, if the *Fram* had not meantime arrived.

They were now travelling in continual daylight, with a task before them every hour of surmounting the steep sides of hummocks. For hours they toiled on, making as much progress as they could between the camps. The work they were performing was scarcely, one would think, likely to make them forget when it was time to sleep. And yet there was an occasion when for thirty-six hours they struggled on without a sleep. The food for the dogs was daily growing scarcer, and they were anxious

to get on as far as possible before it was finished. When, therefore, they came upon a stretch of fairly smooth ice, they made the most of it, and only when they and their dogs were dead tired did they stop. It was their custom to always wind up their watches when they crept into their sleeping-bag; on this occasion when they took them from under their heavy clothing they discovered that both had stopped. In their anxiety to push forward they had forgotten to wind them up, and the springs had run down during the thirty-six hours. There was nothing to do but guess at what the time ought to be, and so they overcame this difficulty as they overcame all others, by making the best of it.

Their next trouble was the failure of the dog food. When the first dog died they kept him, for unless they fell in with a bear and killed it, the bodies of the weaker dogs was all that they could give the stronger ones to keep them alive. At first the dogs turned away from the remains of their comrade, but soon their hunger overcame their scruples, and the ravenous creatures fought over the carcass as soon as it was offered to them. Then came the necessity of killing

one of them every now and again to feed the others; and much as it went against their natures to do it, the explorers had to choose between it and death to themselves.

By the end of April they expected to reach land, but April passed and May passed, and still only the rugged ice was in view. One by one the dogs had to be sacrificed until only two remained. The weight of the sledges was also very considerably reduced by this time. The third sledge had been abandoned, and now each man, assisted by one dog, dragged a sledge on which rested his kayak, his *ski*, firearms, and other necessaries, as well as a moiety of the remaining stores. June came in and still no land was in sight, but the character of the ice was changing, though not very much for the better. It was not so rugged and hummocky, but it was frequently intersected by channels mostly full of floating pieces. It was useless taking to the kayaks to cross them, and often impossible to go round, so they adopted the method of jumping from piece to piece, and drawing their sledges after them. On June 22 they came upon a seal, which they succeeded in

shooting and securing, a fact which was so memorable that they rested for a day, giving the dogs an ample supply of the meat. But the rest was scarcely idleness, for they were visited by three bears, all of which also fell under bullets. They now had abundance of food, both for themselves and the dogs, to last a few weeks if they did not come in sight of the land. Two days later, however, they saw it, lying ahead of them, and they pushed on till a wide, open channel stopped them.

It was evident that the kayaks would have to be used in getting across, and they were taken from the sledges and examined. The result of the rough handling they had undergone in the journey over the ice was manifest in many a crack and hole in the skin-covering, but how to repair them was a question which taxed even the ingenuity and enterprise of the two intrepid Norsemen. They had enough skins to make patches, and twine with which to stitch them on. It was the making of some waterproof coating for the stitch-holes that puzzled them. They possessed a little train oil, and by fixing up an arrangement over their spirit cooking stove,

they obtained a little soot, which was mixed with the oil and used as paint. It was not a very artistic compound, but it was the best they could make, and it kept the water out. Then the kayaks were carefully fastened together by the *ski*, and upon them was laid the sledges and the stores.

When everything had been made fast, the explorers prepared to launch them. Johansen was behind Nansen, and stooping down, when he heard something moving at his back. Thinking it was only one of the dogs, he did not look round, and the next thing he knew was that something hit him beside the head, so that, in his own words, "he saw fireworks." He fell forward, and immediately felt a heavy body upon him. He managed to turn partly round, and saw just above his face the head of a huge bear.

Nansen, ignorant of what had occurred, was bending over his end of the kayak, when he heard Johansen exclaim, "Get a gun." Glancing round, he saw his comrade lying under the bear, gripping its throat with both hands.

With everything securely tied to the kayaks

it was no easy matter to extricate the weapon, and Nansen was pulling and tugging at the cords to get them loose, so as to drag the rifle from its place, when he heard Johansen say, "You will have to hurry if you don't want to be too late."

The two dogs, all that were left of the twenty-eight, were standing snarling at the bear, and as Johansen spoke the one which always travelled with him approached nearer. The bear, having his attention for the moment distracted, stepped off Johansen, who immediately wriggled away and scrambled to his feet. Just as the bear turned on to the dog, Nansen wrenched a gun from the piled-up stores. Swinging round, he found the bear close beside him, and he pulled the first trigger he touched. It fired the barrel loaded with shot, but so near was the bear that the charge entered behind the ear without having time to scatter, and brought him down dead between Nansen and Johansen.

The former was terribly afraid that his companion had been seriously injured, but the only mark the bear had left was a streak across the face where the dirt had been scraped away. As

they had not washed their faces since they left the *Fram*, there was a thick covering of dirt on them, and the bear's claw, as it passed over Johansen's face, had scraped this away, leaving the white skin to show through. The bear was a mother, and had two cubs following it. The explorers took away the skin and some of the meat, the cubs meanwhile standing some distance away whining and growling. A shot was fired which wounded one, whereupon they made off, though only to return and follow the travellers in the distance, until a wide, long channel turned them back.

When the stores had been repacked, the two men, with the two dogs, entered the kayaks and paddled away down the channel, landing some hours later on the other side. The land they had first seen appeared to be the outlying point of an island, but growing mists obscured it for a day or so, and in the meantime they were somewhat puzzled to locate it. The fact that their watches had stopped earlier on the journey made them uncertain as to the exact locality they were in. The direction in which they had noticed the land, and its appearance, also puzzled

them, for there was no land marked on their map at the place where they believed they were. Possibly they might be near a hitherto undiscovered island, and with that thought uppermost in their minds they hastened forward as quickly as the broken character of the ice would allow. For the remainder of June, and the whole of July, they were battling against broken ice and irregular channels, and the distance covered was as nothing compared with the amount of toil experienced. The land, whenever it appeared, was still unlike anything previously recorded, for it now seemed to be of considerable extent.

On August 6 they came upon a stretch of open water, on the other side of which they saw four islands, the heights of which were covered with glacier. They determined that they would winter on the shore of one of the four, and the kayaks were launched and laden with everything for the journey across the open water. It was more perilous than merely crossing channels in the ice, and when they had stored all their provisions, weapons, and other necessaries on the two frail little craft, they found that it would

not be safe to carry the dogs as well. But they could not bring themselves to leave the faithful creatures on the ice; they elected rather to shoot them, scanty as their supply of ammunition was, and upon this decision they acted, each one shooting the dog which had been the other's comrade. It was the saddest task that their difficulties had imposed upon them, and only the absolute necessity for their safety and the completion of their journey induced them to do it.

Sailing down the open water, they skirted along the coast of the strange land, on the lookout for a favourable spot to pitch their camp. As soon as they came to a place which recommended itself to them, they ran ashore and landed their kayaks and stores. The place was merely a barren rocky coast, sheltered somewhat by the high ground behind, but without a trace of vegetation. On the beach one piece of driftwood was found. In addition, there were plenty of small boulders, but such material was scarcely sufficient for the building of a hut in which to pass the dreary cold dark winter.

They overhauled their stores, and found they

possessed two guns, some cartridges, a small hatchet, and two knives. With the hatchet, after considerable labour, they cut through the piece of driftwood, and rejoiced in the possession of a suitable ridge-pole for the centre of the roof. Stones were collected and built into a low wall, within which all their property, except the guns, kayaks, and knives, was placed. Then, with the unstored articles, they set out along the coast and the floating ice to seek the wherewithal to complete the house.

Walrus was the first essential, for the hide would afford a covering for the roof, the blubber would furnish fuel for the stove, and the meat would be useful as food. They spied two lying at the edge of a piece of ice, and approaching with the utmost caution, succeeded in shooting both. Their weight, however, as they fell over, caused them to slide from the ice, and they were in the water before the men could reach them. They secured the carcasses, so as to prevent them from either sinking or drifting away, and essayed to haul them up on to the ice again so as to remove the hides and blubber. But the combined strength of the two men was in-

sufficient to pull one of the huge carcasses up on to the ice again, and they were compelled to strip the skin and blubber off as the walrus lay in the water. This necessitated their lying upon the floating carcasses, and by the time the operation was completed, their already travel-stained clothing was rendered still more uncomfortable by being saturated with blood and fat.

Returning to the camp with their walrus hides and blubber, they explored the ridge lying behind the spot, and were fortunate in finding some moss, which they carefully gathered and carried away to assist in the building of the hut. The walls they had made of the stones allowed for an internal space of about ten feet long by not quite six feet wide. The crevices between the stones they filled in with moss and gravel, and then stretching the walrus hides over the ridge-pole, they weighted them down with more stones. Over all of it they heaped snow and ice, and in order to avoid suffocation by the smoke of their blubber cooking stove, they constructed an ice-chimney, which, however, did not always carry off the smoke, while it frequently thawed at the base, and made the

interior very draughty. Their guns, *ski*, and other articles and stores, they placed inside the hut, leaving the kayaks outside; and when everything was stored conveniently, they built a wall as a screen to keep the wind from out of the door, and hung a curtain of skins across the doorway. The floor of the hut was composed of stones which no ingenuity of theirs could render smooth or even, and upon it their sleeping-bag, the fur of which was almost worn entirely away, was stretched.

As soon as the hut was finished the two set out on foot in search of bears for winter provisions, and were happy in finding sufficient to enable them to fill their larder with enough meat to last them well into the following summer. This they stored on the top of the hut, and during the long winter night they often heard foxes over their heads gnawing at the frozen mass. They had not enough cartridges to waste on shooting them, and as there was more meat than they would want, they let the foxes feed in peace. Bear's meat, fried at night and boiled in the morning, was the only food they had; and when the long

dark night set in, with the temperature inside the hut barely above freezing point, they lay in their sleeping-bag side by side, generally for twenty-two hours out of the twenty-four. The inside of the walrus-hide roof became covered with frost and ice, upon which the black from the blubber-fed stove settled; the stone floor was so uneven that they gave up trying to make it smooth, and lay as comfortably as they could under the circumstances, with their feet nearly touching one side of the hut and their heads the other. From November until the following March they were undisturbed, except by the sounds of the foxes on the roof and the howling of the wind, and a picturesque glimpse is given by Nansen of their life in his diary entry made on December 24, 1895, when the temperature inside the hut was 11° below zero.

“And this is Christmas Eve; cold and blowy out of doors, and cold and draughty indoors. How desolate it is here! We have never had such a Christmas before. The bells are now ringing in the Christmas festival at home; I can hear the sound of them swinging out

through the air from the church towers. How beautiful it sounds! Now the candles are being lit on the Christmas trees, and flocks of children are let in and dance round in exuberant glee. Must have a Christmas party for children when I get home. We, too, are keeping the festival in our little way. Johansen has turned his shirt and has put the outer one inside. I have done the same, and have changed my drawers as well, and put on the others which I had wrung out in warm water. And then I have washed myself in a quarter of a cup of warm water, using the discarded drawers as sponge and towel. I feel like a new being; my clothes do not stick to my body as much as they did. Then for supper we had fish 'gratin,' made of potted fish and Indian meal, with train oil for butter—fried or boiled both equally dry—and as sweets we had bread fried in train oil. Tomorrow morning we are going to have chocolate and bread."

Where a turned shirt and a bath in a tea-cup formed the physical luxuries, and bread fried in train oil and chocolate comprised the

feast, in celebration of Christmas Day, it is not difficult to picture the amount of enjoyment available for every-day use, nor is it difficult to understand that they sighed even for a railway time-table to peruse. But yet they kept their health, their spirits, and their tempers. The rough stones under their sleeping-bag seem to have been the only thing they could not turn into a jest. When one snored too loudly to allow the other to sleep, it was only necessary for the victim to move; they lay so close together for warmth that a movement was equal to a dig in the back, and that meant waking the snorer by changing his position on the knobbly boulders from ease to discomfort.

At length the approach of the sun became manifest by the gradually brightening twilight, and the arrival of a flock of little auks reminded them that spring was at hand. They celebrated the occasion by boiling their clothes, one article at a time, in the only pot they possessed, and then scraping the grease and dirt from them by the aid of a knife, so as to render them soft enough for travelling, as it was

beyond the question to get them clean. The sooty smoke from the winter's cooking had thoroughly begrimed their faces, and all they could do to get clean was first to try and scrape the dirt off with the knife, and then rub themselves all over with bear's grease and wipe it off with moss.

By the middle of May the water along the shore was sufficiently open to permit of their starting in the kayaks on the journey which they expected would end at Spitzbergen. On May 19, 1896, they bade adieu to their winter camp, having packed everything on the kayaks, which they fastened together for convenience and stability. Sometimes they had to get out on to the ice which blocked the channel and drag the kayaks over to the open water on the other side; sometimes they sailed and sometimes they paddled. They passed numbers of walrus lying on the ice, the great monsters paying no heed to them whatever. Once they landed on a mass of ice which rose high out of the water, in order to climb to the top of it and examine the coast line, for they were still in very great doubt whether they were off

the shore of a hitherto undiscovered island or not.

They made the kayaks fast to a projecting piece of ice, and together climbed up to the top of the hummocks. As they reached the summit they looked back to the spot where they had left the kayaks, and were horrified to see them adrift. Already they were some distance away from the ice, and, being tied together, they were going rapidly down the channel. For a moment the sight held the two men motionless, for the kayaks represented their only means of escape. Everything beyond the clothes in which they stood was stored on board, and to be left on the ice without food, arms, or shelter, was almost certain death.

There was only one desperate means of salvation, and that Nansen took. Dashing down the hummock, he plunged into the ice-cold water and struck out after the retreating kayaks.

Weighted by his stiff, heavy, grease-sodden clothes, he had the utmost difficulty in swimming at all; but there was a greater handicap even than his clothes in the low temperature of the water. It struck through him with a

chill which reached to his bones, numbing his muscles, and making his joints lose their suppleness. The breeze which was blowing helped the kayaks along, but only increased his discomfort. Soon he felt that the fight was only a matter of minutes, for as the coldness numbed him more and more, he realized that unless he overtook the kayaks quickly he would go to the bottom like a stone. The cold penetrated to his lungs, so that he gasped for breath; his hands and feet lost all feeling, and his eyes were growing blurred as he nerved himself for a final desperate struggle. Swimming as hard as his strength of will and muscle could command, he succeeded in coming within touch of the light drifting craft. The fact that the two were fastened together was of the utmost importance under the circumstances, for had they been separate he could never have clambered into one in his benumbed and exhausted condition. As it was, he managed to get one arm over the *ski* which formed the coupling between the kayaks. His hands were too cold to grip and he hung for a few seconds resting, till the growing chill in his

limbs warned him of the danger he was in of becoming frozen. With a superb effort of determination, he raised himself until he was able to lift a leg over the side of one of the kayaks, and then struggled on board, where he lay for a minute or so trying to recover his breath.

Still fearing the cold, he grasped a paddle and set to work vigorously to force the kayaks back to the ice on which Johansen was standing. The exertion caused his blood to circulate once more, and, by the time he had reached the ice, the deadly chill was out of his frame. There were no dry clothes to put on in place of his wet ones, and all that could be done was to wring them out and then, working hard to keep up his circulation, wait till they dried on his back.

In order to prevent another such occurrence the kayaks were freed from each other, Nansen occupying one with half the provisions and stores, and Johansen the other. Two days after the break away they had reason to be thankful they had made this arrangement. They were skirting along the ice at the time, and suddenly came upon a herd of walrus.

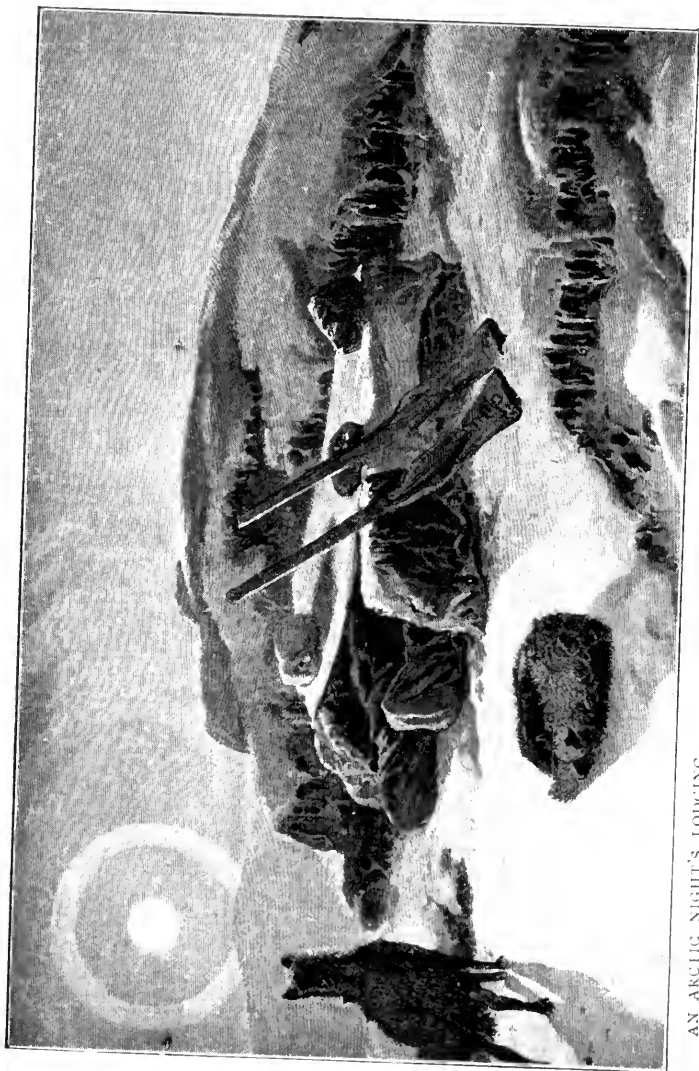
Instead of quietly watching them go past, as was usually the case, a huge bull slid off the ice with a roar, and swam rapidly towards Nansen's kayak.

Diving as he came near to it, Nansen anticipated that he intended rising immediately underneath it, and so capsizing it. He therefore paddled as hard as he could, when the walrus rose by his side. It reared high out of the water, towering over the kayak and its occupant, and only by the quickest of manœuvres was Nansen able to avoid having it fall upon him. Baulked in that attempt, the walrus swam alongside and, plunging its tusks through the frail covering of the kayak, strove to upset it with its flapper.

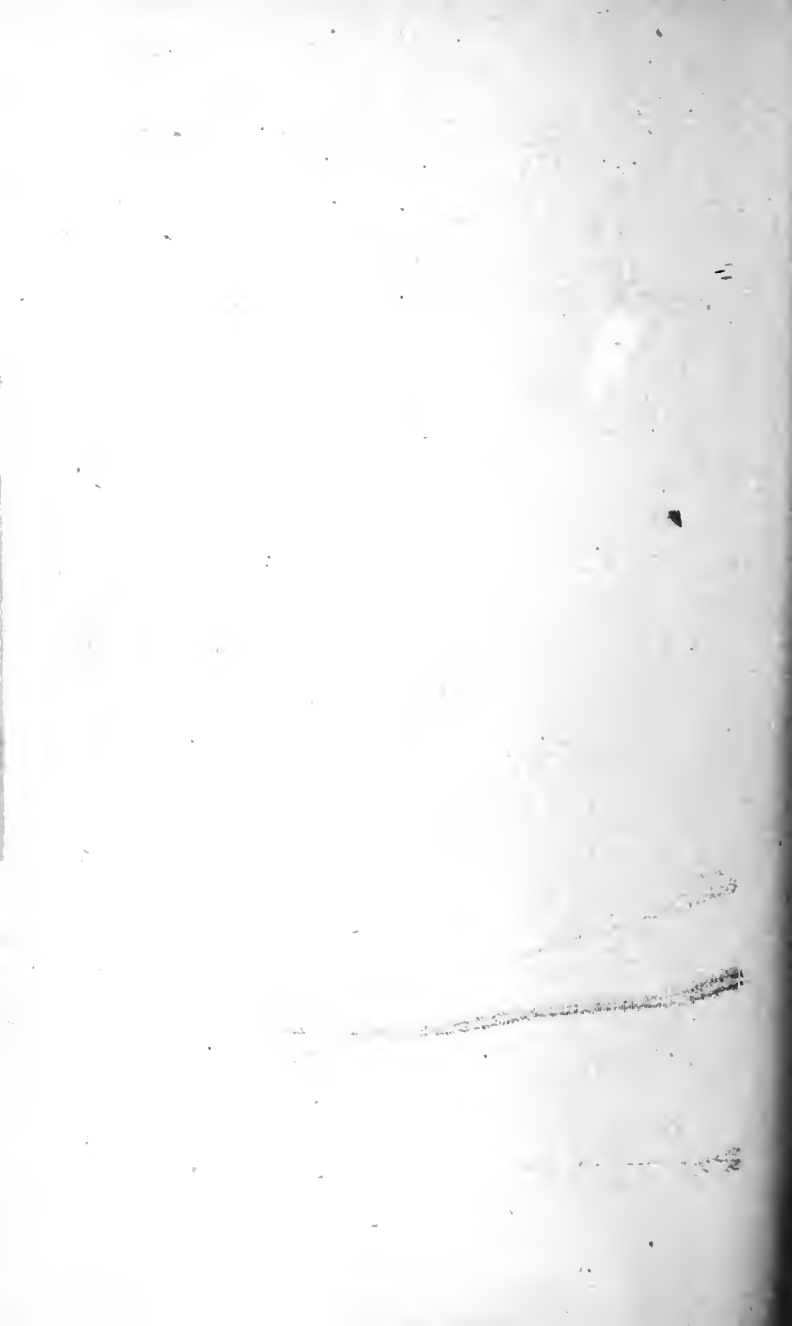
Nansen swung his paddle in the air and, bringing it down with all his strength on the monster's head, caused it again to rear in the water. Paddling furiously directly the brute's tusks were withdrawn, he managed to elude it till it sank, when he made for the ice, reaching it just in time, the water having almost swamped the kayak through the holes the walrus had made with his tusks.

When the damaged kayak was taken out of the water, the injury was found to be more extensive than at first supposed. The two explorers determined to stay where they were for a few days, so as to thoroughly overhaul and repair their kayaks, and have a good rest before commencing the difficult journey which was to be negotiated before they could arrive at Spitzbergen. They made as comfortable a camp as they could on the ice, and, after supper, got into the sleeping-bag and rested peacefully. Nansen was first awake, and, having crept out of the bag, set to work preparing breakfast. It was ready before Johansen was, and not wishing to disturb his comrade, Nansen put on his *ski* and set out for a "constitutional" over the ice. He had not proceeded far when he heard a sound which made his heart jump. It was the bark of a dog.

Hurrying back, he told Johansen, and then set out in the direction whence the sound had come, in search of, as he believed, a whaling ship. He had not gone very far when he saw in the distance two moving specks. There was



AN ARCTIC NIGHT'S LODGING,
THE EXPLORERS IN THEIR
SLEEPING BAGS



evidently a whaler in the neighbourhood, he told himself, and redoubled his efforts. As he approached the two specks they became clearer, until he saw distinctly that one was a man and the other a dog.

The man noticed him and waved his hat, to which Nansen replied by waving his; and as they came nearer, he heard the man speak to his dog in English.

"How do you do?" he said to Nansen when they met.

"How do you do?" Nansen answered, as they shook hands. "Are you wintering near here?"

"Yes; our camp is over there. Won't you come across?" the other replied. "I think we can find room for you, if you will."

Nansen, never dreaming but that he was recognised, assented, although he wondered why the man did not ask him about the *Fram*. Presently his companion looked at him closely and said: "Are you Nansen?"

"Of course I am," the explorer answered, and at once both his hands were clasped in a hearty grasp as his companion quickly expressed his congratulations.

"I was not certain," he explained. "When I saw you in London you were a fair man with light hair, but now your face and hair are black, and for the moment I did not know you. My name is Jackson."

Nansen had forgotten that his face and hair were still begrimed with the dirt and grease of months of travel, and that his own family might have been forgiven for not recognising in the unkempt, travel-stained, long-haired man, the smart, well-set-up Norwegian doctor. Now, however, that he was known, he listened with great interest to the information that his companion, Mr. F. G. Jackson, leader of the Jackson-Harmsworth expedition, was able to give him. When they reached the encampment of the party on Cape Flora, every one turned out in answer to the leader's call and gave the intrepid explorer a characteristic British greeting. Then they photographed him, as he stood, before they took him into the house and supplied him with the luxury he had not known for more than a year—of a cake of soap and a change of clothes.

While he was enjoying his bath, his hosts exchanged opinions. The fact that he had

arrived on foot and alone suggested to them the idea that he was the only survivor of the thirteen who had set out in the *Fram*, and they decided to make no reference to what might be a very unhappy memory. Consequently, when Nansen reappeared, clean and comfortably clad, they had a meal ready for him, and urged him to set to at once. He looked at them and asked where his comrade Johansen was. Had they not brought him in? Of course they knew nothing about Johansen; they believed Nansen was the only survivor, and he had been so long out of the world that it never occurred to him it was necessary to tell them Johansen was waiting for him to return to breakfast. When two men see no one else but themselves for more than a year, it is not to be wondered at that they forget the rest of the world is not in touch with them.

As soon as he mentioned the fact that Johansen was in the neighbourhood, a party at once started off to fetch him, and the worthy lieutenant was as much surprised as they had been when they came upon him. They at once took charge of him and his belongings, and a few

hours later he and Nansen, well washed, well clad, and well fed, were smoking cigars in comfortable chairs in the dining-room of the hospitable Jackson's quarters, the heroes of the occasion.

Three weeks later they were sailing south to Norway in the *Windward*, and arrived at Vardo on August 13, 1896. A week later the *Fram* entered the same port, with all her crew in good health, and with nearly three years' supplies still on board.

The record of her voyage, after the departure of Nansen and Johansen on March 14, 1895, was very satisfactory. She drifted steadily in the ice towards the north-west until she touched as high as $85^{\circ} 57' N$. At the end of February, 1896, she became stationary, and remained so until the middle of July, when the crew forced a passage through the ice into open water, and from thence the *Fram* sailed to Norway. The first news the crew received on arrival at Vardo was that Nansen and Johansen had reached there just a week before. They had had some misgivings as to the safety of their two adventurous comrades, and the news of their return

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cleared away the only sign of uneasiness from the otherwise happy minds of the men who formed the most successful expedition that has ever set out in search of the North Pole.

CHAPTER IX

Recent Expeditions

The Jackson-Harmsworth Expedition—Object of the Expedition—An Interesting Experiment—The Franz Joseph Land Question Settled—A Group of Small Islands, not a Continent—Peary Revisits Greenland—Attempts the Ice-Cap Again—Is Unsuccessful—A Monster Meteor—A Third Visit—Herr Andrée's Scheme—Equipment of the Balloon—Relief and Search Parties sent out.

THE interest and admiration aroused by the brilliant achievements of the Nansen expedition eclipsed in the public mind, for the time being, the fact that several other parties were in the Arctic regions striving to get to the Pole. It required the dramatic and adventurous method adopted by Herr Andrée and his companions to divert public attention from the *Fram*; but in scientific circles several expeditions were being watched at the time.

One of these was the Jackson-Harmsworth expedition, the members of which rendered such signal service to Nansen and Johansen. The expedition left London on July 11, 1894, in the steam yacht *Windward*, Captain Browne, for Franz Josef Land, and comprised the leader, Mr. Frederick G. Jackson; Lieutenant Armitage, R.N.R., astronomer; Dr. Kottlitz, medical officer; Mr. W. S. Bruce, zoologist; and Messrs.

Wilton and Heywood. A complete outfit and stores and provisions for three years were taken; and it is an interesting fact that this undertaking was the first instance of an individual London newspaper proprietor displaying the generous enterprise which owners of great American journals had already shown. Mr. A. C. Harmsworth contributed to the expedition the most necessary factor for a prolonged stay in the Arctic regions, the sinews of war.

On arrival at Franz Josef Land, a site for the camp was selected near Cape Flora, and the camp, to which the name Elmwood was given, was laid out. It consisted of a Russian log-house and several canvas houses, as the first intention was to lodge the members in the canvas structures. But very little experience showed that canvas was not the most comfortable material for residential purposes in Arctic regions, so the whole party moved into the log-house, using the canvas structures for warehousing stores. Here they lived during the three years that the expedition was away, and so well off were they that during the whole period not one member had a day's illness. As

the leader said on his return to England in 1897, "a jollier, healthier, and busier little community never existed." They were always busy, and every moment of the day was occupied. Even in the dark winter period they found constant employment for their hands and minds.

In the high latitude where they were the sun set for the last time about the middle of October, and was not again visible until the latter end of February. From the day the sun went below the horizon until the middle of November there was about a couple of hours faint twilight at "noon," but after that midday and midnight were not to be distinguished by any change in the light of the sky. It was always dark.

During this period, when the members were in winter quarters, they kept very regular hours. At 8.30 a.m. they had breakfast, and when the meal was over each one took up some part of the household duties—washing the dishes, making the beds, sweeping the rooms, feeding the dogs, and such like. Unless the weather was very stormy, a couple of hours was spent in exercise over the snow on *ski*, or if the weather was too

inclement to allow them to go far away, they spent the two hours in exercising round the house. At 2 p.m. they gathered again round the dining-table and partook of tea, bread and butter, and cheese, spending the afternoon in making tents and harness for the sledge dogs, or anything else that was wanted. At 7.30 p.m. they had dinner, passing the remainder of the evening in reading, smoking, games, etc., until 11.30 p.m., when they retired to their bunks.

Of food they always had plenty, living very largely on the game killed. During the last winter they were at Elmwood a chief article of diet was an Arctic bird, the loon. Great numbers of these visited the islands in the mild seasons, and in the autumn before the expedition returned 1,400 were shot and frozen for winter food. As the loons only arrive during the mild season and disappear as soon as winter sets in, Mr. Jackson, in the last autumn he was at Elmwood, caught a number both of loons and kittiwakes, and having attached a copper label to each, with the letter J. engraved upon it, liberated the lot. By this means it is hoped to learn where the birds go to in the winter,

for should any bird bearing a copper label be shot in Scotland, Norway, or elsewhere, it will show where their refuge is situated.

The primary object of the expedition was to make a complete exploration of Franz Josef Land, which was formerly considered to be merely the southern extremity of a vast tract of land, possibly a second Greenland, and extending up towards the Pole. The result of the three years' work was to effectually disprove this opinion by showing that in place of a continent there was only a group of small scattered islands. Various voyagers had returned from time to time and reported observations of land in the locality, with high mountain ranges. Gillies Land, Petermann Land, and King Oscar Land all had existence on the maps; but the Jackson-Harmsworth party could only find scattered islands where the coast of Franz Josef Land was charted, and hummocks of piled-up ice where mountain ridges had been seen. Of Gillies Land, Petermann Land, and King Oscar Land no trace could be found. When the expedition went on board the *Windward* to return to England, the vessel steamed north-west for

fifty miles without seeing any indication of land, the water being open and with less ice than would have been probable had land been near. And yet they were in the locality where Gillies Land was marked on the chart. A journey was also made to within ten miles of the spot where Eastern Johannessen Land was placed on the chart, but no signs of land were visible, although the weather was clear at the time.

During the three years spent at Elmwood, exploring and surveying journeys were frequent in the mild seasons, and the arduous nature of the work done is well shown in the account of the last two journeys undertaken prior to returning to England. On March 16, 1897, a party consisting of Jackson and Armitage, with sledges, thirteen dogs, a pony, and a canoe, set out from the log-house with the intention of going round the western side of Franz Josef Land in order to define its limits. From the start they had to face stormy weather, while the snow was both deep and soft, and the ice rough and treacherous. After a fortnight's travelling, during which they came upon a hitherto undiscovered headland and fjord, they

rounded the north-eastern extremity of the western land. Continuing their journey westward, they had to battle against the severity of the weather, the temperature going as low as 40° below zero, and proving disastrous to the animals. By April 7 nearly all the dogs were dead, and progress was very slow and difficult. Three days later the nature of the ice along the shores compelled them to turn inland, and they had to make the best of their way over glaciated land 1,500 feet high. Out to sea there was open water, and as they progressed they found that the water was free from ice right up to the glacier face. Then the pony died, and with only their diminished team of dogs to haul, they were obliged to abandon everything that was not absolutely necessary to maintain them during the remainder of their journey. The weather grew worse and worse, and for days they were surrounded by thick heavy mists, with strong gales and drifting snow. They tried to find a way along the shore, leaving the high glacier summit, but what ice there was on the coast was breaking up so rapidly that they were compelled once more to climb to the high

level, abandoning the canoe, as there was no chance of their being able to use it.

While regaining the higher level, they came upon the only bear met with during the whole journey, and they were careful not to allow him to escape, his flesh and fat being welcome additions to their stock of food and fuel. The gales now became more severe, until they found it impossible to travel when one was blowing. Consequently they had to press forward as fast and as far as they could in between the blows, and on one occasion were marching for twenty-four hours at a stretch. The ice was also terribly trying, and so rough was it in places that they frequently had to go three times over the same track before they could find a way over or round some awkward obstacle. At one time they were pushing across the ice of a bay, when they were suddenly stopped by the ice opening on to free water, and, after retracing their steps, they had to climb and haul their stores up the steep sides of the glacier to the summit, forty-five feet above the sea level.

When they set out, it was arranged that a relief party should meet them at Bell Island

the third week in April, but so many delays had been caused that they were not able to reach the rendezvous until a fortnight after the time fixed! The relief party had been waiting for them, considerably anxious at their non-appearance. In the two months they had been travelling, they had had only thirteen and a half fine days.

After returning to Elmwood and resting for ten days, the two again set out to the eastward. They were travelling over the ice on the second day out, when it gave way under the sledge. They lost all their stores and equipment, and saturated their cartridges. They had at once to turn back, but the ice was growing so thin that they had great difficulty in reaching the shore. For nearly twenty-six hours they had to keep marching before they covered the forty-two miles which lay between the scene of their disaster and Elmwood. This was the last journey undertaken prior to their departure in the *Windward* for England a month or so later.

The account of the achievements of this expedition would be incomplete were no mention

made of two open-water discoveries. One was that of the British Channel, an open-water tract extending from the islands into an open sea, the second discovery, named Queen Victoria Sea, which was free from ice all the time the expedition was on the island, and is probably the most northerly open water in the world.

While Franz Joseph Land was being explored and mapped, a private expedition formed by Sir Martin Conway visited Spitzbergen, which, in the opinion of Sir John Franklin, ought to be the base of operations for an expedition to the Pole.

Lieutenant Peary, having extended the world's knowledge very considerably by his journey across Greenland, determined to return and make yet another visit to the wonderful fertile valley he had discovered. There were still regions to explore on the land he had seen from the top of the great cliffs facing Independence Bay, and an attempt was made to reach them. The expedition left the United States in the *Falcon*, and on arrival at the site of Redcliff House found that the presence of so

much wood had been too much for the honesty of the "huskies."

They had removed every particle of the house, and a fresh one had to be built as a base of operations. The effort to cross the ice-cap, however, on this occasion, was not so successful as the previous one, in consequence of the intense cold encountered. So terrible was the weather that at one time the dogs were frozen to the ice, and travelling was rendered impracticable. But if the ice-cap was not traversed, a very interesting discovery was made by members of the expedition. This was the discovery of a mass of meteoric iron embedded at Cape York. The mass weighed forty-five tons, and, after one unsuccessful attempt to move it, was finally shipped on board the *Falcon* and removed to the United States. It is the largest meteor ever found on the earth.

The outcome of his experiences was that he again returned to Greenland, this time for five years. He has a complete scheme for the arranging of a trip towards the Pole. It is to form a prolonged chain of food depôts, reaching as far to the North as possible; and when

this has been done, a strongly equipped sledge party will push along the line and make a dash from the most outlying of the depôts straight for the Pole. Not without reason, it is contended by some that the land lying north of Greenland extends almost, if not quite, to the Pole; and the result of this last expedition of Lieutenant Peary's will probably decide whether it does so or not.

Such was the opinion at the time the suggested trip was contemplated. The result shows, once more, that the frozen North is a stronghold of mystery and marvel which must not be too lightly regarded as a field of conquest. Prominent as he is amongst the bravest and best of Arctic living heroes, Peary has not yet been able to solve the problem of the Pole. On September 10, 1899, his vessel, the *Windward*, the vessel which had been of such service to the to the Jackson-Harmsworth Expedition, arrived at Brigus, Newfoundland.

At once the news was mooted abroad and telegraphed to the ends of the world that the previous record of high northern latitude reached by man had been surpassed, and that the achievement of

the heroic Norsemen, Nansen and Johansen, had been beaten by one of the Anglo-Saxon race. Lieutenant Peary, the report stated, had penetrated fifty miles farther north than any man had yet been. More than that, it was asserted that he would have succeeded in getting still nearer the Pole had the cold not been so intense. As it was, his feet were frost-bitten, and in his compulsory retreat he was so incapacitated from active movement that his companions had to haul him on a sledge for more than a hundred miles.

To those who knew the indomitable pluck and the persistent courage of the greatest of our American Arctic explorers, the story of his success was a matter for great rejoicing. But the Arctic world is the home of mystery, and also the home of disappointments, for a day after the good news was spread abroad there came another and more complete account of the journey. Peary had been met by a continuous and tremendous storm when only fifty miles away from his base, the later report stated. For days the brave little party made themselves as secure and comfortable as circumstances would

permit, but the cold was too overpowering to be withstood. Every one of the band suffered from frost-bite, Peary to such an extent that seven of his toes had to be amputated. It was impossible, therefore, to proceed farther, even had the storms abated, and reluctantly he was forced to give the order to return, his condition rendering it imperative that he should be hauled back to the base on a sledge.

He returned to his old camp at Etah, and, as soon as he was able to move, proceeded with the exploring of Grinnell Land, completing the exploration of its western extremity. The North still remains to be mapped out in detail, and the the work was to be proceeded with while the *Windward* journeyed to the South to report what had been done, and to return to Etah in the spring of 1900, when Lieutenant Peary will devote another three years to the quest of the Pole.

The *Fram* has also gone to the North again, under the command of her former captain, Sverdrup, and from him interesting accounts may also be expected.

An interesting expedition, though not one which achieved great results, was that under-

taken by the Duke of Abruzzi in the *Stella Polare*. The Italian nation had not hitherto taken a prominent part in attempting to solve the great problem, and the enterprise of the Duke, in fitting out the expedition was all the more welcome, as an evidence that the Latin races were not in this matter without a sense of patriotic rivalry with the Anglo-Saxon peoples. Fog and ice both exerted strong opposition to the progress of the *Stella Polare*, but the expedition was early enabled to claim that an error in the position accorded to Cape Flora in the maps had been demonstrated by the surveys made by its members.

Lastly comes the expedition of Herr Andrée, perhaps the most novel of all Arctic expeditions, inasmuch as it was undertaken by balloon. The idea which actuated Herr Andrée in his enterprise was to utilize the current of air which, in July, almost invariably blows over Dane's Island to the North. Being an experienced balloonist, he realized that, could he once rise into that current in a balloon, he would be carried right across the Polar region in a few days. From the balloon car he would be able to

observe the character of the region below him, and set at rest the question whether perpetual ice, open water, or land, occupied the extreme northerly spot of the world's surface.

With two companions, Dr. Strindberg and Herr Fraenkel, and a specially prepared balloon, an attempt was made to get away in July, 1896, but was unsuccessful, and the start was postponed for a year. In July, 1897, the members of the expedition were again ready, and on July 11 they were cut loose and floated away out of sight to the North. Since then no authentic news has been heard of them.

They went away prepared to face a long detention in the frozen world. In the car of the balloon they carried weapons, ammunition, and material wherewith to build a shelter, should the balloon collapse and leave them on the ice. An aluminium boat was also carried, so that the party could escape by sea if necessary. Several carrier pigeons were taken, and were to be liberated at intervals on the passage; but although one pigeon is said to have been shot in the Far North, it is doubtful whether it was one of the *Andrée* birds.

The balloon, when it went out of sight, was travelling at a speed which would have carried it over the Pole in a few days, and probably have enabled it to descend in Siberia in about a week. For the first fortnight after it had started, therefore, interest all over the world was keenly excited for further news. But the fortnight passed without any reliable intelligence being received, and a month followed, and so on until a year had gone by. Then relief and search parties were talked about, and the Swedish Geographical Society sent one out to look for the missing balloonists in Siberia.

In June, 1898, it was approaching the mouth of the Lena, and expected to be at the New Siberia Islands before the winter set in. It did not meet with Andrée, nor did it obtain any reliable information respecting him. News was certainly published in every civilised country to the effect that some outlying hunting tribes had come upon a huge bag, having a mass of cordage attached to it, together with the remains of some human bodies. The Russian, Swedish and Norwegian Governments immediately sent forward

auxiliary search parties, but their only success was to trace the origin of the report and find that a Siberian trader had, in a moment of mischievous humour, hoaxed a too confiding telegraph agent.

Later, on September 12th, 1899, a Swedish sloop, the *Martha*, reached Hammerfest with the information that a buoy, branded with the name of the Andrée expedition, had been found to the north-east of King Charles Islands. The buoy had lost the screw plug from the top, and had been so damaged by coming in contact with some hard substance that the interior cylinder was too dented to permit of an examination being made of the inside.

Andrée was well supplied with these buoys, and at any time one may be discovered containing a record of his doings from the moment he disappeared with his balloon sailing towards the north, and thus he may be able to claim for his native Sweden the laurels now held by Norway, of having made the record of "farthest North," for he will have been over the Pole itself. But will any expedition meet him or trace his party? Or will the secret of the

Pole still remain unsolved when all the expeditions now out come home again? Such questions are not to be answered save by Time; but one thing every one can do, and that is hope that if the grand prize is not secured by one of the English-speaking peoples, it may go to their kindred, the hardy, daring Norsemen.

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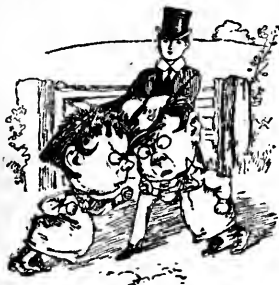
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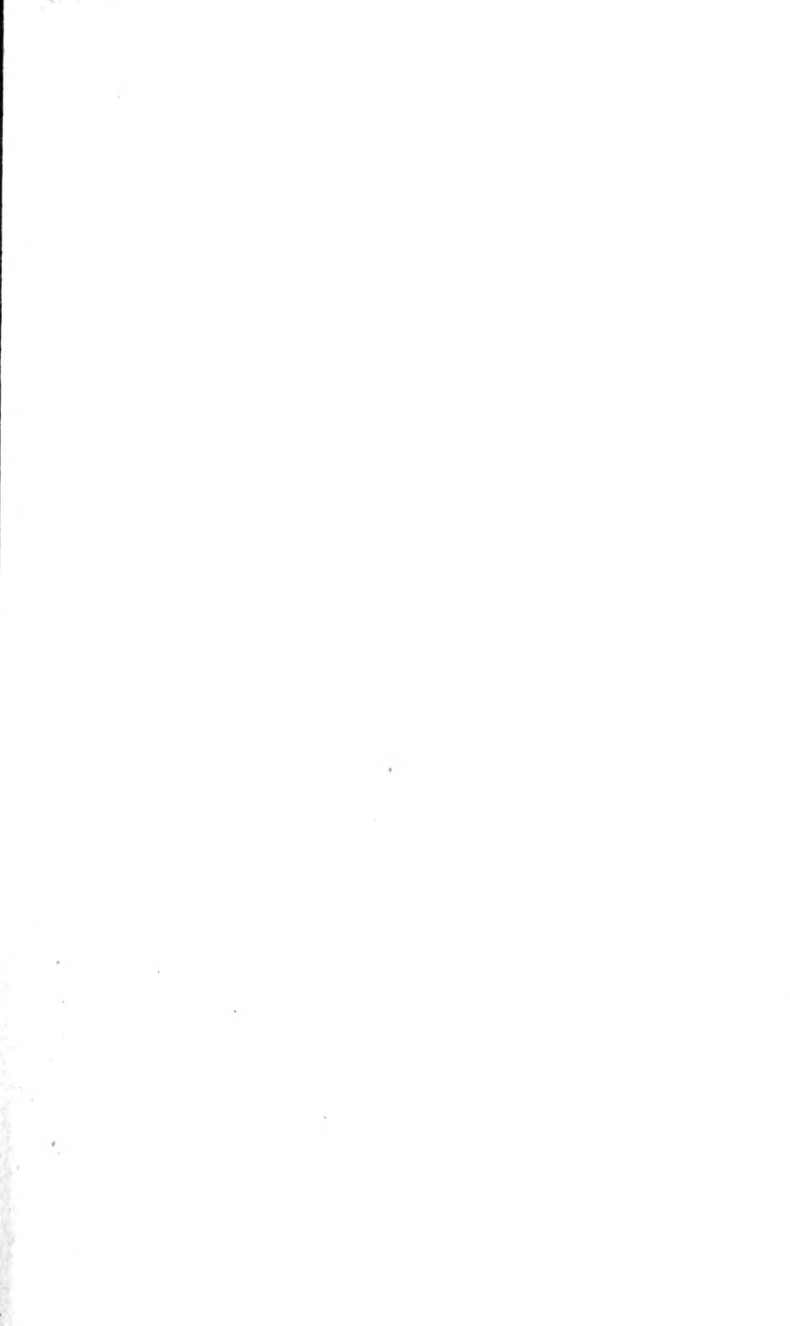
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